BLM - Vernal Drlg.

Form DOGC-1a

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS

081302

Fed surface

5. Lease Designation and Serial No.
ML-28042

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. If Indian, Allottee or Tribe Name

1a. Type of Work
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

7. Unit Agreement Name
Dirty Devil Unit

b. Type of Well
Oil Well [ ] Gas Well [XXX] Other Single Zone [ ] Multiple Zone [ ]

8. Farm or Lease Name

2. Name of Operator
HIKO BELL MINING & OIL COMPANY

9. Well No.
31-15A

3. Address of Operator
P.O. DRAWER AB, VERNAL, UTAH, 84078

10. Field and Pool, or Wildcat
WILDCAT

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface
NW¼ NE¼ SEC.15 (616 FNL & 1829 FEL)

11. Sec., T., R., M., or Blk. and Survey or Area
SEC.15, T9S-R24E, SLM

At proposed prod. zone SAME

14. Distance in miles and direction from nearest town or post office*
BONANZA, UTAH is 4 miles south

12. County or Parrish: UINTAH
13. State: UTAH

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)	16. No. of acres in lease	17. No. of acres assigned to this well
616'	616.59	320
18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.	**19. Proposed depth**	**20. Rotary or cable tools**
NONE	6,000'	ROTARY

21. Elevations (Show whether DF, RT, GR, etc.)
5,284 grd.

22. Approx. date work will start*
JULY 16, 1986

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
9 7/8"	8 5/8"	24.0	250'	CEMENT TO SURFACE
7 7/8	5½"	J-55, 15.5#	6,000'	2 STAGE & CIRCULATE CEMENT TO SURFACE

PROPOSE TO DRILL 6,000' WASATCH GAS DEVELOPMENT WELL, USING ROTARY TOOLS. PLAN TO DRILL WITH FRESH WATER to 4,000' AND BRINE WATER TO TOTAL DEPTH. LEASE IS IN THE DIRTY DEVIL UNIT, HIKO BELL MINING & OIL COMPANY, OPERATOR.

JUL 1986
RECEIVED
Vernal, Utah

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
Signed Robert E. Covington Title MANAGER, EXPLORATION Date 6-7-86

(This space for Federal or State office use)

Permit No. ACCEPTED BY BLM FOR UNIT PURPOSES ONLY Approval Date

Approved by Title Date 7-21-86
Conditions of approval, if any:

Act 60-4M-62
Div of Oil Gas & Mining

*See Instructions On Reverse Side

Revised October 1, 1985

Date APD Received 07/15/86

CONDITIONS OF APPROVAL FOR THE SURFACE USE PROGRAM OF THE APPLICATION FOR PERMIT TO DRILL

Company/Operator Hiko Bell Mining and Oil Company

Well Name & Number 31-15A

Lease Number ML-28042

Location NW 1/4 NE 1/4 Sec. 15 T. 9 S. R. 24 E.

Surface Ownership BLM-Administered Public Lands

THIRTEEN POINT SURFACE USE PROGRAM:

Multipoint Requirements to Accompany APD

1. Planned Access Roads

Access roads and surface disturbing activities will conform to standards outlined in the USGS Publication (1978) Surface Operating Standards for Oil and Gas Development.

The road shall be upgraded to meet the standards of the anticipated traffic flow and all-weather road requirements. Upgrading shall include ditching, draining, graveling, crowning, and capping the roadbed as necessary to provide a well constructed safe road. Prior to upgrading, the road shall be cleared of any snow cover and allowed to dry completely. Traveling off the 30 foot right-of-way will not be allowed. Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainages be blocked by the roadbed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around them avoided.

2. Location of Existing and/or Proposed Facilities

If a tank battery is constructed on this lease, the battery or the well pad will be surrounded by a dike of sufficient capacity to contain 1-1/2 times the storage capacity of the battery. The integrity of the dike must be maintained.

All permanent (on site for six months or longer) structures constructed or installed (including pumping units) will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within 6 months of installation. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded.

3. Methods for Handling Waste Disposal

Burning will not be allowed. All trash must be contained in trash cage and hauled away to an approved disposal site at the completion of the drilling activities.

On BLM administered lands:

The reserve pit shall be lined with about 2 pounds/square foot of bentonite. This would be done to conserve water because of operator's request and the request of the representative of the Utah Division of Oil, Gas, and Mining.

Produced waste water will be confined to a lined pit or, if deemed necessary, a storage tank for a period not to exceed 90 days after first production. During the 90-day period an application for approval of a permanent disposal method and location, along with required water analysis, will be submitted for the AO's approval. Failure to file an application within the time allowed will be considered an incident of noncompliance.

4. Well Site Layout

All pits will be fenced with a wire mesh fence and topped with at least one strand of barbed wire. The reserve pit fencing will be on three sides during drilling operations and on the fourth side when the rig moves off the location. Any hydrocarbons on the pit will be removed from the pit as soon as possible after drilling operations are completed. Pits will be fenced and maintained until clean-up.

The fence will be constructed as prescribed in the USGS Publication (1978) Surface Operating Standards for Oil and Gas Development. Alternatives to the prescribed standards shall be submitted to the Authorized Officer for approval.

Well Site Layout: The location was rotated 180° at the onsite with the representative from the Utah Division of Oil, Gas, and Mining to reduce construction costs. The reserve pit will be located on the northeast side of the location. A blooie pit will be constructed near its east corner. Approximate blooie pit dimensions are 20' by 20'. The blooie pit will be at least 100 feet from the well hole.

The stockpiled topsoil will be stored on the southeast of the blooie pit between the pit and the pad's east corner.

Access to the well pad will be from the existing road 500 feet north of the pad.

5. Plans for Restoration of Surface

Immediately upon well completion, the location and surrounding area will be cleared of all debris, materials, trash and junk not required for production.

Before any dirt work to restore the location takes place, the reserve pit must be completely dry and all cans, barrels, pipe, etc. will be removed. The reserve pit and that portion of the location and access road not needed for production facilities/operations will be reclaimed. The reserve pit will be reclaimed within one year from the date of well completion.

All disturbed areas will be recontoured to the approximate natural contours.

The stockpiled topsoil will be evenly distributed over the disturbed areas.

Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.

Seed will be broadcast or drilled at a time specified by the BLM. If broadcast, a harrow or some other implement will be dragged over the seeded area to assure seed coverage and the seed mixture will be proportionately larger (double the lbs. per acre).

An appropriate seed mixture will be determined by the BLM, either as part of the Conditions of Approval of the APD or at the time restoration activities are scheduled to begin.

All seeding will be done from September 1 until the ground freezes.

At such time as the well is plugged and abandoned, the operator will submit a surface reclamation plan to the Surface Management Agency for prescribed seed mixtures and reseeding requirements.

If the seeding is unsuccessful, the lessee/operator may be required to make subsequent seedings.

The BLM recommends the following procedure for reclamation:

Compacted areas of the well pad should be plowed or ripped to a depth of 12" before reseeding. Seeding should be done with a disc-type drill to ten inches apart. The seed should be planted between one-half inch deep and three-quarter inch deep. A drag, packer or roller may be used to insure uniform coverage of the seed, and adequate compaction. Drilling of the seed should be done on the contour where possible. Where slopes are too steep for contour drilling, a "cyclone" hand-seeder or similar broadcast seeder should be used, using twice the recommended seed per acre. Seed should then be covered to a depth described above by whatever means is practical.

6. Surface Ownership: BLM-administered public lands with State minerals are involved in the project.

7. Other Additional Information

A cultural resource clearance has been received for the project.

If, during operations, any archaeological or historical sites, or any object of antiquity (subject to the Antiquities Act of June 8, 1906) are discovered, all operations which would affect such sites are to be suspended and the discovery reported promptly to the Surface Management Agency.

On BLM administered land, it is required that a proposed use of pesticide, herbicide or other possible hazardous chemicals shall be cleared for use prior to application.

Additional Surface Stipulations for BLM, BIA, FS, DWR, or Private Surface Lands:

The operator or his contractor shall contact the BLM Office at (801) 789-1362 between 24 and 48 hours prior to construction activities. Contact the Book Cliffs Resource Area.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved plan of operations, and any applicable Notice to Lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

The dirt contractor will be provided with an approved copy of the Surface Use Plan from the APD.

This drilling permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.

In the event after-hour approvals are necessary, please contact one of the following individuals:

Craig M. Hansen Assistant District Manager for Minerals	(801) 247-2318
Gerald E. Kenczka Petroleum Engineer	(801) 781-1190
R. Allen McKee Petroleum Engineer	(801) 781-1368

DIV. OIL, GAS & MINING

Form DOGC-1a

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

2

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS

5. Lease Designation and Serial No.
ML-28042

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. If Indian, Allottee or Tribe Name

1a. Type of Work
DRILL [XX] DEEPEN [ ] PLUG BACK [ ]

7. Unit Agreement Name
Dirty Devil Unit

b. Type of Well
Oil Well [ ] Gas Well [XXX] Other Single Zone [ ] Multiple Zone [ ]

8. Farm or Lease Name

2. Name of Operator
HIKO BELL MINING & OIL COMPANY

9. Well No.
31-15A

3. Address of Operator
P.O. DRAWER AB, VERNAL, UTAH, 84078

10. Field and Pool, or Wildcat
WILDCAT

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface NW¼ NE¼ SEC.15 (616 FNL & 1829 FEL)

11. Sec., T., R., M., or Blk. and Survey or Area
SEC.15, T9S-R24E, SLM

At proposed prod. zone SAME

14. Distance in miles and direction from nearest town or post office*
BONANZA, UTAH is 4 miles south

12. County or Parrish 13. State
UINTAH UTAH

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 616'

16. No. of acres in lease 616.59

17. No. of acres assigned to this well 320

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft. NONE

19. Proposed depth 6,000' Wasatch

20. Rotary or cable tools ROTARY

21. Elevations (Show whether DF, RT, GR, etc.)
5,284 grd.

22. Approx. date work will start*
JULY 16, 1986

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
9 7/8"	8 5/8"	24.0	250'	CEMENT TO SURFACE
7 7/8	5½"	J-55, 15.5#	6,000'	2 STAGE & CIRCULATE CEMENT TO SURFACE.

PROPOSE TO DRILL 6,000' WASATCH GAS DEVELOPMENT WELL, USING ROTARY TOOLS. PLAN TO DRILL WITH FRESH WATER to 4,000' AND BRINE WATER TO TOTAL DEPTH. LEASE IS IN THE DIRTY DEVIL UNIT, HIKO BELL MINING & OIL COMPANY, OPERATOR.

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE 7-14-86
BY John R. Baza
WELL SPACING: 203

RECEIVED
JUL 9
DIV. OF OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
Signed Robert E. Carrington 1-789-3233 Title MANAGER, EXPLORATION Date 6-7-86

(This space for Federal or State office use)

Permit No. 43-047-31726 Approval Date

Approved by Title Date
Conditions of approval, if any:

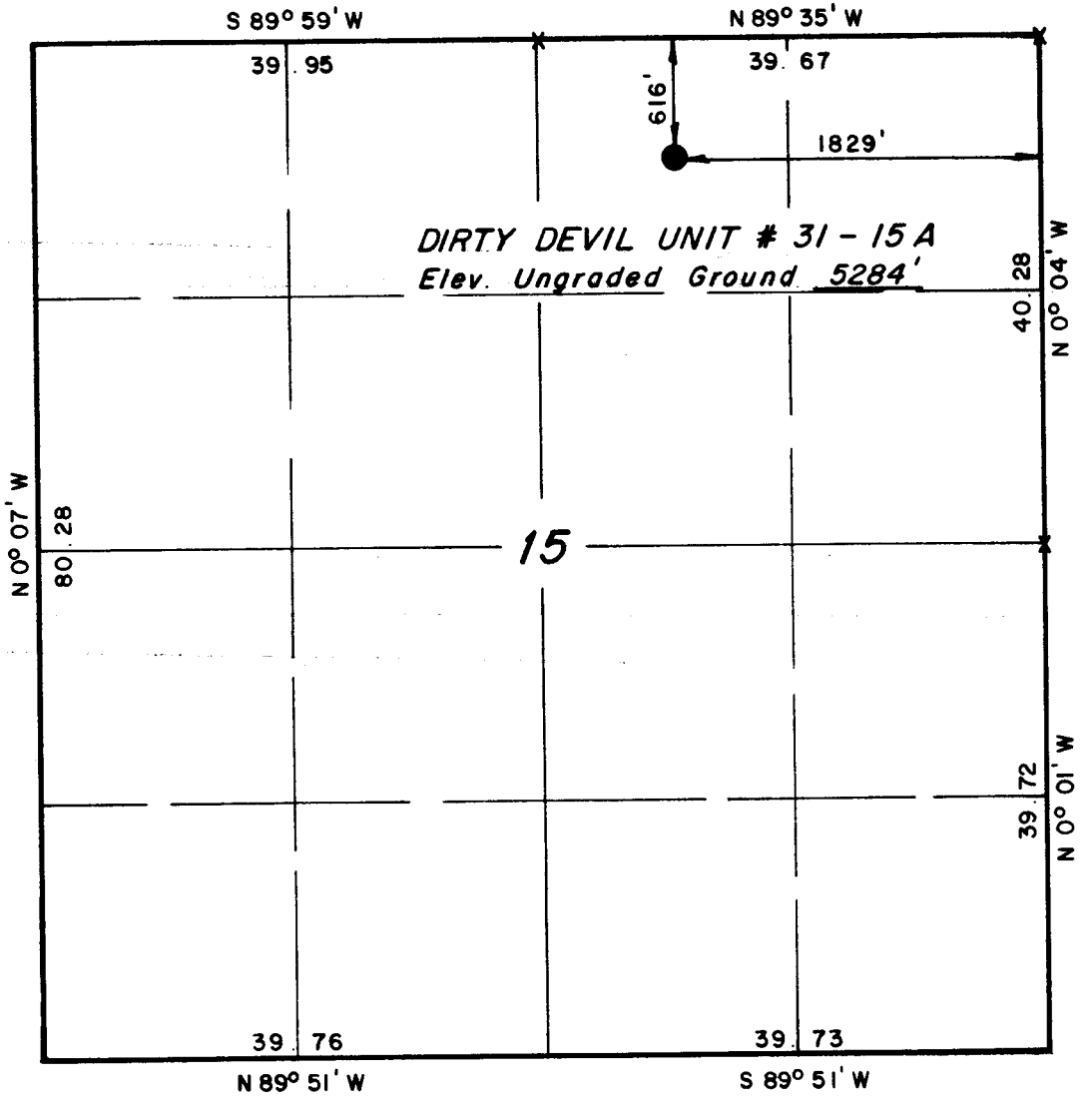
*See Instructions On Reverse Side

T 9 S, R 24 E, S.L.B.&M.

PROJECT

HIKO BELL MINING & OIL CO.

Well location, *DIRTY DEVIL UNIT #31 - 15 A*, located as shown in the NW 1/4 NE 1/4 Section 15, T9S, R 24 E, S.L.B.&M. Uintah County, Utah.



X = Section Corners Located

CERTIFICATE

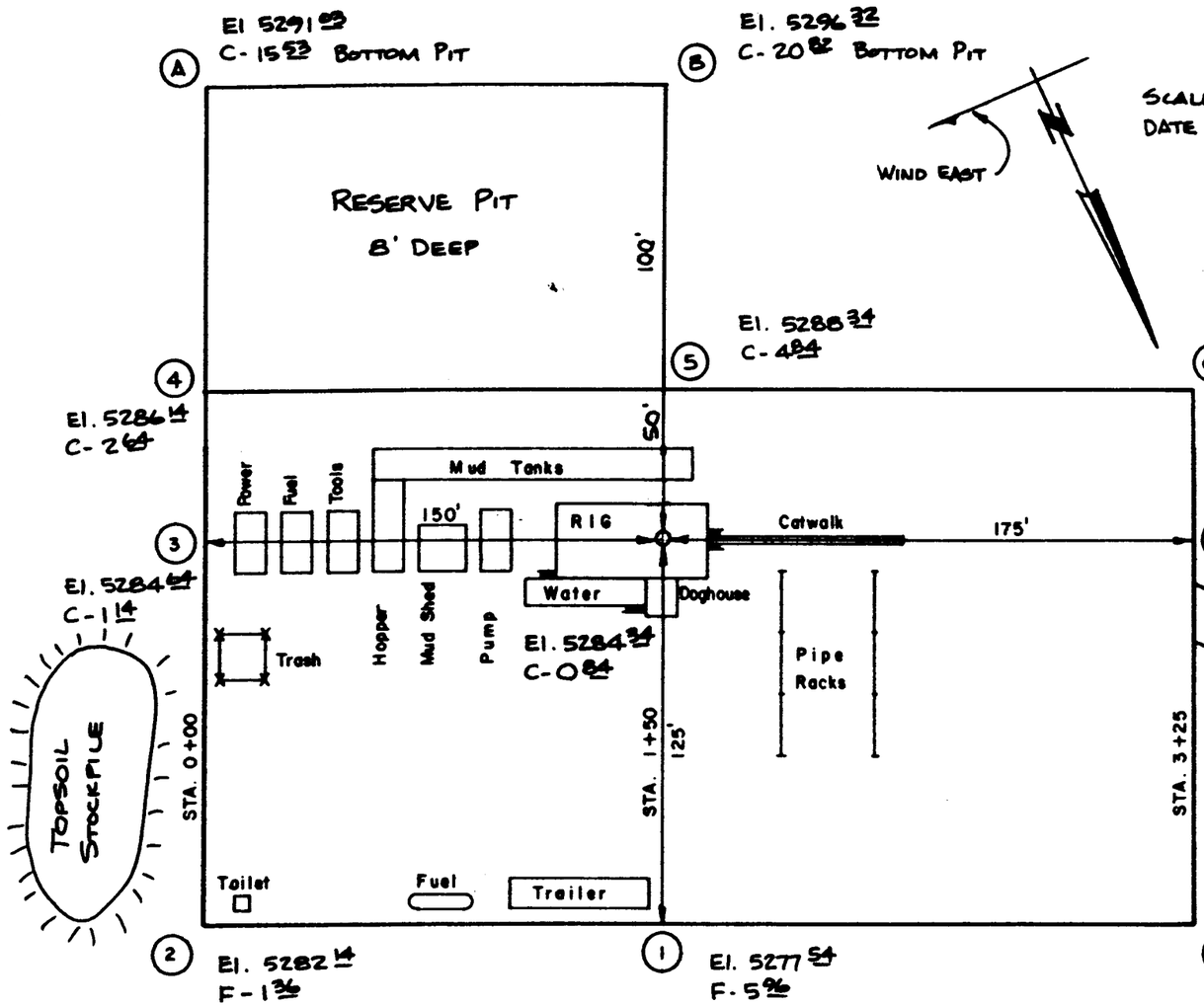
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION Nº 2454
STATE OF UTAH

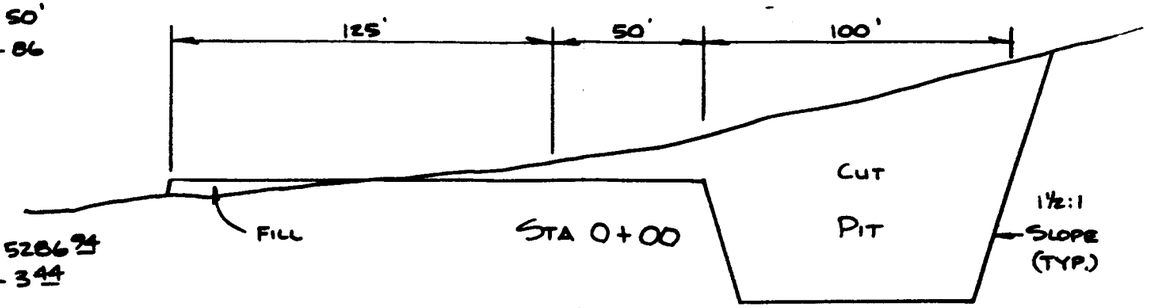
UINTAH ENGINEERING & LAND SURVEYING
P. O. BOX Q — 85 SOUTH - 200 EAST
VERNAL, UTAH - 84078

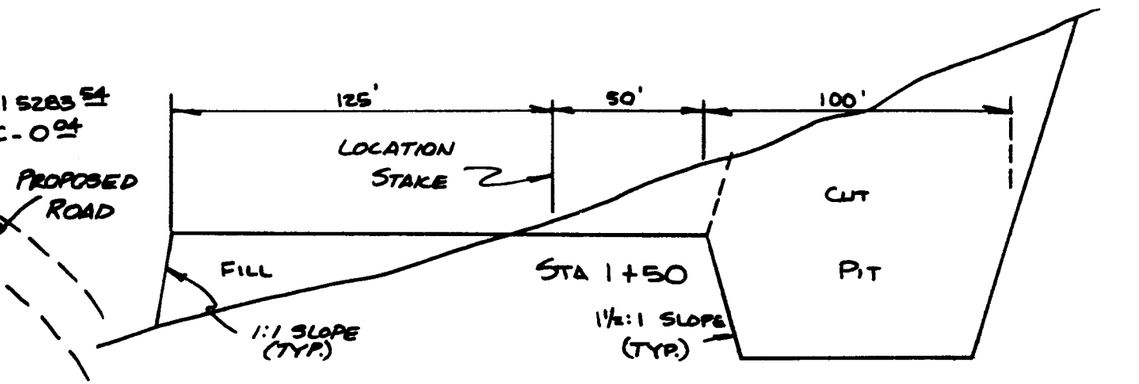
SCALE 1" = 1000'	DATE 7 / 7 / 86
PARTY G.S. G.B. BFW	REFERENCES GLO Plat
WEATHER Fair	FILE HIKO BELL

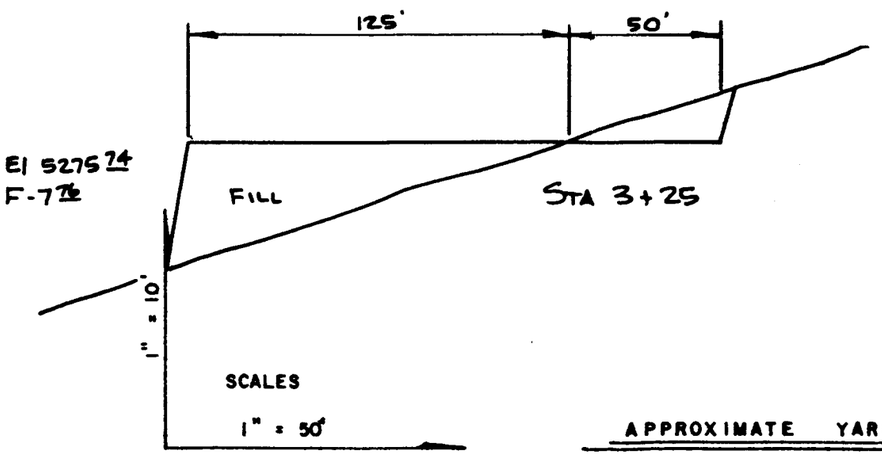
HIKO BELL MINING & OIL CO.
DIRTY DEVIL UNIT #31-15A

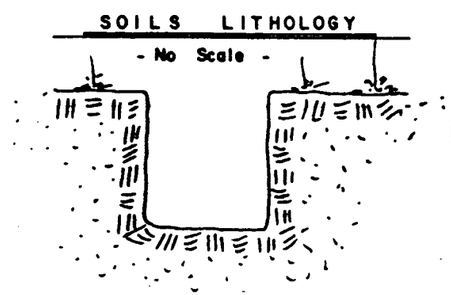


SCALE 1" = 50'
DATE 7-7-86





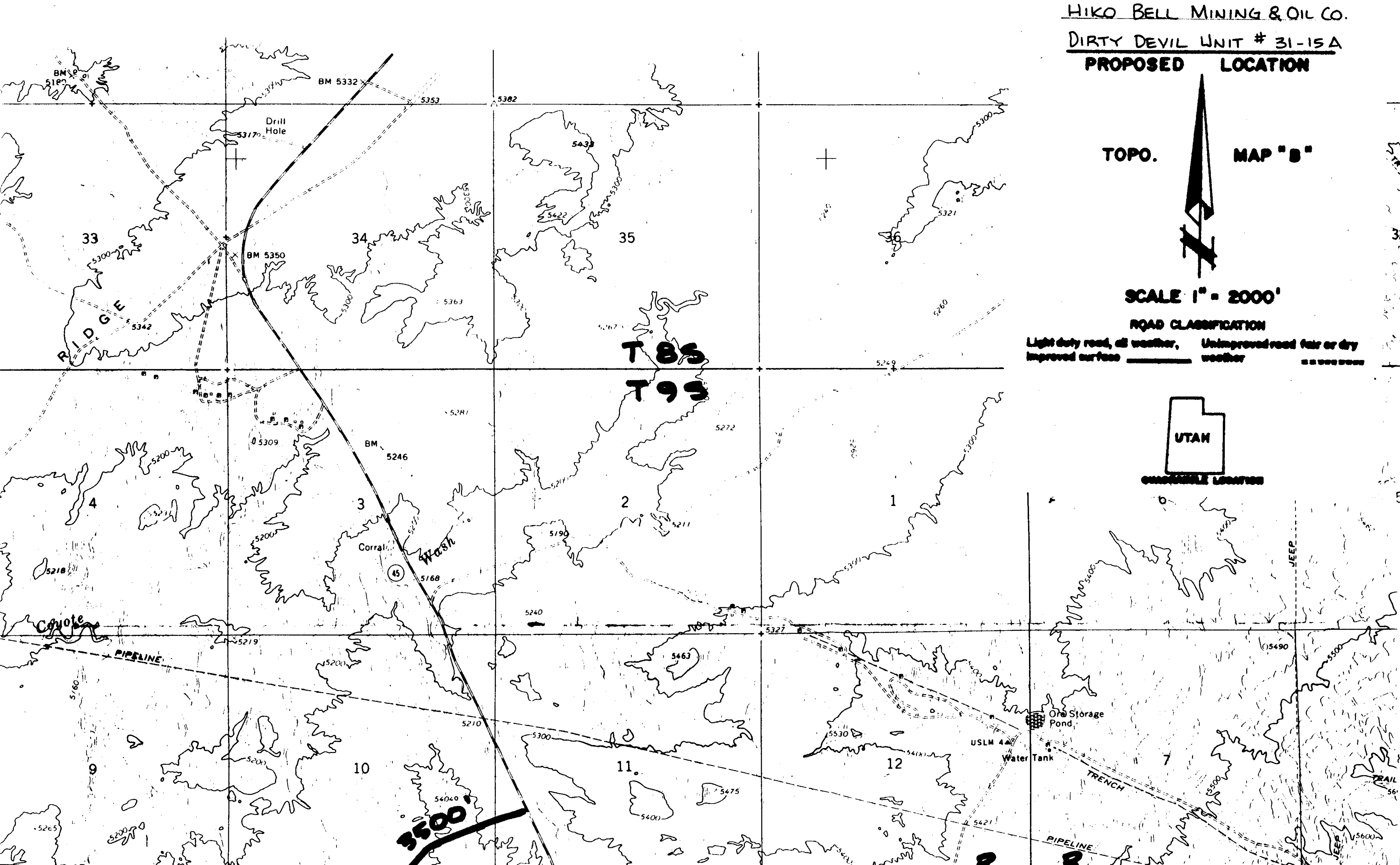


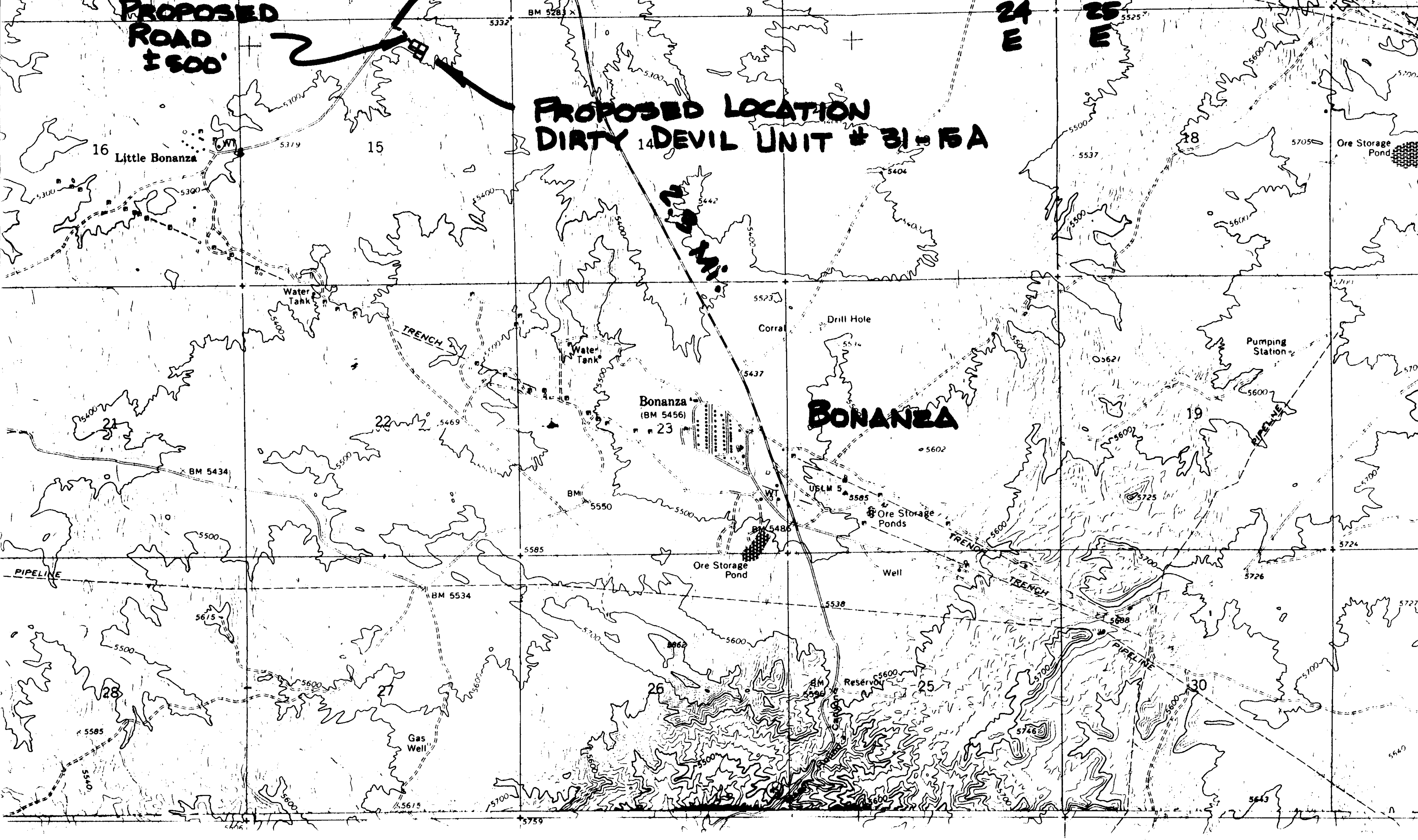


APPROXIMATE YARDAGES

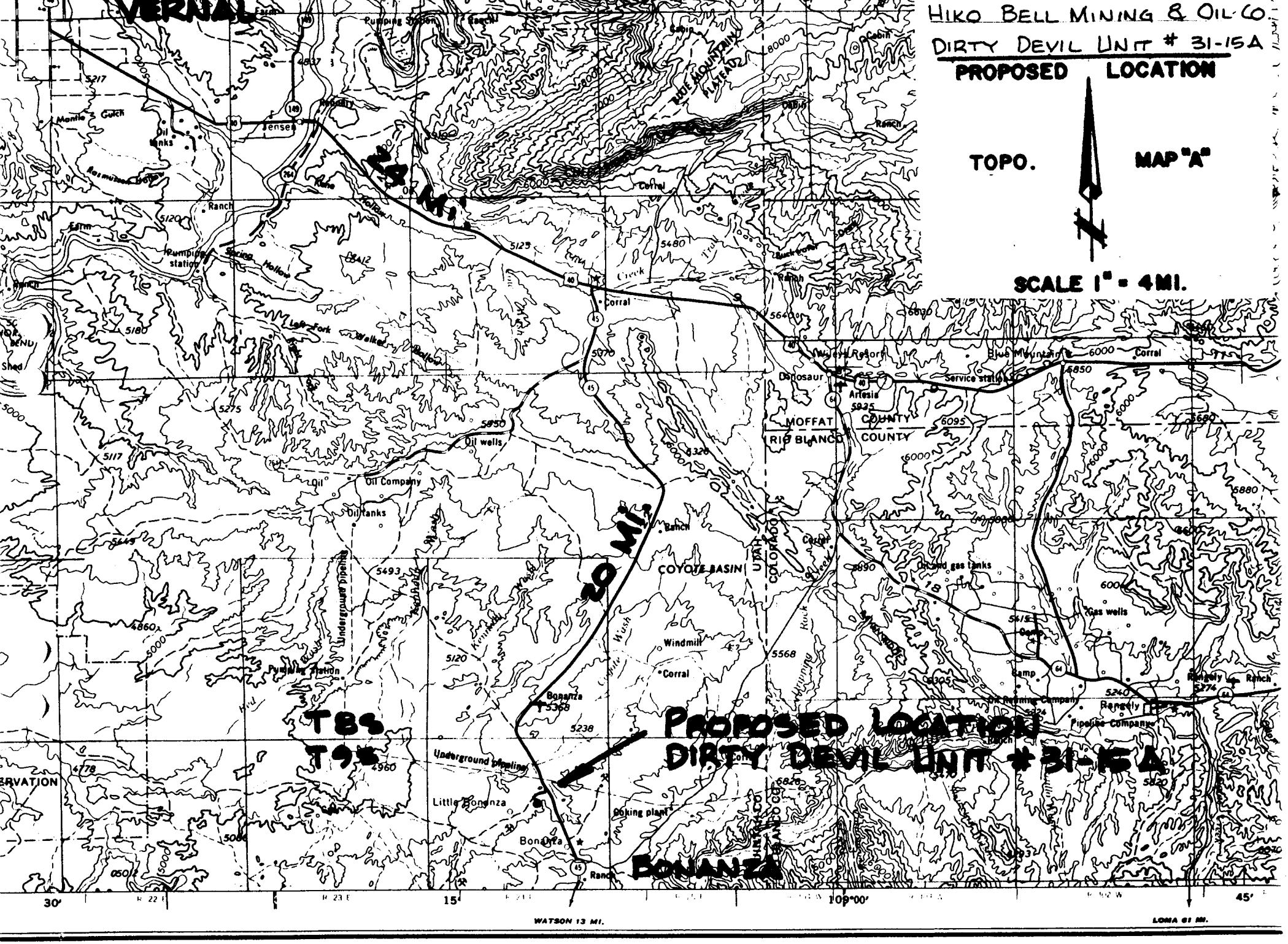
Cubic Yards Cut = 11,396

Cubic Yards Fill = 4,166


HIKO BELL MINING & OIL CO.
DIRTY DEVIL UNIT # 31-15A
PROPOSED LOCATION
TOPO. MAP "B"
SCALE 1" = 2000'
ROAD CLASSIFICATION
Light duty road, all weather, improved surface
Unimproved road fair or dry weather
UTAH
T 8 S
T 9 S
RIDGE
Drill Hole
BM 5332
BM 5350
BM 5246
Corral
Wash
Coyote
PIPELINE
Ore Storage Pond
USLM 4
Water Tank
TRENCH
JEEP
3500'
33
34
35
36
4
3
2
1
6
9
10
11
12
7



PROPOSED ROAD ±500'
PROPOSED LOCATION
DIRTY DEVIL UNIT # 31-15A
24 E
25 E
2 Mi.
BONANZA
Little Bonanza
Water Tank
TRENCH
Water Tank
Bonanza
(BM 5456)
Corral
Drill Hole
Pumping Station
Ore Storage Pond
Ore Storage Ponds
Ore Storage Pond
Well
PIPELINE
BM 5434
BM 5534
BM 5283
USLM 5
Reservoir
Gas Well
16
15
14
18
21
22
23
19
28
27
26
25
30



END
RTIALLY REVISED 1965
distances in miles between stars

HIKO BELL MINING & OIL COMPANY

13 POINT SURFACE USE PLAN

FOR

WELL LOCATION

DIRTY DEVIL 31-15A

LOCATED IN

SECTTON 15, T9S- R24E, S.L.B. & M.

UINTAH COUNTY,

UTAH

HIKO BELL MINING & OIL COMPANY
DIRTY DEVIL 31-15A
SECTION 15, T9S-R24E
13 POINT PLAN

1. EXISTING ROADS

See attached topographic map "A".

To reach the Hiko Bell Mining & Oil Company location Dirty Devil 31-15A located in the NW¼ NE¼ of Section 15, T9S-R24E, SLM from Vernal, Utah.

Proceed east out of Vernal, Utah along U.S.Highway 40, 25 miles to the junction of this highway and Utah State Highway 45 to the south; proceed southerly along Utah State Highway 45 a distance of 20 miles to an intersection on the west side of the road marekd "Ziegler Chemical & Mineral Company" and also a sign marked "Little Bonanza. Turn west and drive 3500 feet. The location is on the southeast side of the road.

There is no construction anticipated along any of the above described roads. They will meet the standards required for an orderly flow of traffic during the drilling, completion and production activities of the location.

2. PLANNED ACCESS ROAD

See topographic map "B".

It is planned to grade a 500' access road to the location.

3. LOCATION OF EXISTING WELLS

See topographic map "B".

There are no oil or gas wells within a one mile radius of this site. There are no abandoned water wells, temporarily abandoned wells, disposal wells, drilling wells, shut in wells, monitoring or observation wells for other resources within a one mile radius of this well.

4.LOCATION OF EXISTING AND PROPOSED PRODUCTION FACILITIES

See Topographic Map "B" and the location layout sheet.

There are no Hiko Bell Mining & Oil Company tank batteries, production facilities, oil gathering lines, injection lines within a one mile radius.

In the event that production is established, the production facilities will be contained within the location site, No additional surface will be required. See location layout for production facilities.

HIKO BELL MINING & OIL COMPANY
DIRTY DEVIL 31-15A
SECTION 15, T9S-R24E
13 POINT PLAN

The location of proposed facilities off of the location site is not known at this time. In the event that production is established at this well, plans will be submitted for the proposed lines.

The rehabilitation of the area used for production facilities will meet the requirements of Item #7 and #10.

5. LOCATION AND TYPE OF WATER SUPPLY

Water ~~sued~~ used for the drilling of this well will be hauled by truck from the White River at an existing loading ramp located in the NE¼ of Section 2, T10S-R24E, approximately 5 miles south of the proposed site. This water will be hauled over existing roads and the proposed access road.

There will be no water well drilled on this location site.

6. SOURCE OF CONSTRUCTION MATERIALS

All construction material for this location site and the proposed access road shall be borrow material accumulated during the construction of the location site and access road. No additional road gravels or pit lining material from other sources are anticipated at this time, but if they are required, the appropriate actions will be taken to acquire them from private sources,

7. METHODS FOR HANDLING WASTE DISPOSAL

See Location Layout Sheet.

A reserve pit will be constructed.

The reserve pit will be approximately 8 feet deep and at least one half of this depth shall be below the surface of the exisitng ground.

One half of the reserve pit will be used as a fresh water storage area during the drilling of the well and the other half will be used to store non-flammable materials such as cuttings, salts, drilling fluids, chemicals, produced fluids, etc.

If deemed necessary by the agencies concerned to prevent contamination to surrounding areas, the reserve pits will be lined with a gel.

The pits will have wire and overhead flagging installed at such time as deemed necessary to protect the water fowl, wildlife and domestic animals.

7. METHODS OF HANDLING WASTE DISPOSAL, CONTD.

At the onset of drilling, the reserve pit will be fenced on three sides and at the time drilling activities are completed, it will be fenced on the fourth side and allowed to dry completely prior to the time that backfilling and reclamation will be attempted.

When the reserve pit dries and reclamation activities commence, the pits will be covered with a minimum of four feet of soil and all requirements in Item #10 will be followed.

There will be a portable trash basket placed on the site. All trash will be hauled to the nearest sanitary land fill.

A portable chemical toilet will be supplied for human waste.

8. ANCILLARY FACILITIES

There are no ancillary facilities planned at the present time and none foreseen.

9. WELL SITE LAYOUT

See Location Layout Sheet.

The State of Utah will be notified before any construction begins on the proposed location site.

As mentioned in Item #7, the pits will be unlined, unless it is determined by the representatives of the agencies involved that the materials are too porous and would cause contamination to the surrounding area. Then the pits will be lined with a gel and any other type of material necessary to make it safe and tight.

When drilling activities commence, all work shall proceed in a neat and orderly manner and sequence.

10. PLANS FOR RESTORATION OF SURFACE

As there is some topsoil on the location site, all topsoil shall be stripped and stockpiled. (See Location Layout Sheet and Item #9). When all drilling and production activities have been completed,then the location site and access road will be reshaped to the original contour and stockpiled topsoil spread over the disturbed area.

10. PLANS FOR RESTORATION OF SURFACE, CONTD.

Any drainage rerouted during the construction activities shall be restored to their original line of flow as near as possible. Fences around pits are to be removed upon completion of drilling activities.

As mentioned in Item #7, the reserve pits will be completely fenced and wired and overheard flagging will be installed if there is oil in the pits, and then allowed to dry completely before covering.

Restoration activities shall begin within 90 days after the completion of the well. Once completion activities have begun, they shall be completed within 30 days.

When restoration activities have been completed, the location site and access road will be reseeded with a seed mixture recommended by the State ~~and/or BLM District Manager~~ when the moisture content of the soil is adequate for germination. The Lessee further covenants and agrees that all of the clean up and restoration activities shall be done and performed in a diligent and workmanlike manner and in strict conformity with the above mentioned Item #7 and #10.

11. OTHER INFORMATION

THE TOPOGRAPHY OF THE GENERAL AREA - (See Topographic Map "A")

The area is located in a topographic basin which is bojnded on the north by the Blue Mountain-Yamp Plateu uplift on the north and by the Douglas Creek arch on the east. The south edge of the basin is marked by the Book Cliffs and the west part of this area, known as the Uinta Basin is bounded by the Wasatch Mountains on the west and the east-west rending Uinta Mountains on the north.

The floor of the basin in interlaced with numerous canyons and ono-perrenial streams of the area, The walls of some of these canyons are steep and form ledges in the sandstones and shales which outcrop in the area,

The topsoil of the area ranges from a light, brownish to gray sandy clay (SM-ML) type soil to poorly graded gravels in clayey (OL) tyoe soil.

The majority of the numerous washes and streams in the area are of a non-perrenial nature, fowing during the early spring run off and during extremely heavy rain storms which are rare but do sometimes occur during the summer months. Annual rainfall is 8 inches. The White River four miles to the south is the only perennial stream near the location site.

11. OTHER INFORMATION, CONTD.

Due to the low precipitation avereage, climate conditions, and the marginal types of soils, the vegetation that is found in the area is common to the semi-arid region in this part of the Uinta Basin and consists of sgebrush, rabbit brush, some grasses and a few few cacti as the primary flora.

The fauna of the are consists predominately of the mule deer, coyotes, pringhorn antelope, rabbits and various small ground squirrels and a few other types of rodents.

The bords of the area are raptors, finches, ground sparrows, magpies, crows and jays, with an occasional white tailed hawk.

THE TOPOGRAPHY OF THE IMMEDIATE AREA (See Topographic Map "B")

The Dirty Devil 31-15 location in in a relatively flat area approximately two miles north of the mining camp of Bonanza and one mile east of the Little Bonanza (Ziegler) mining camp.

The majority of the drainages in the area are of a non-perrenial nature and drain northwest to Cottonwood Wash, also a non-perrenial major drainage of the area.

The terrain in the vicinity of the location slopes to the northwest at approximately a 2% grade.

Surface and mineral ownership of the lands involved by this location are owned by the State of Utah and are state administered.

The vegetation in the immediate area surrounding the location site is predominately sagebrush and grasses.

There are no occupied dwelling or other facilities of this nature in the general area.

There are no visible archaelogical, historical, or cultural sites within any reasonable rpoximity of the proposed location site.(See Topographic Map "B").

12. LESSEE'S OR OPERATOR'S REPRESENTATIVE

Robert E. Covington, Manager, Exploration
Hiko Bell Mining & Oil Company
P.O. Drawer AB
Vernal, Utah, 84078 Phone: 801-789-3233

13. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions which presently exist; that the state-

HIKO BELL MINING & OIL COMPANY
DIRTY DEVIL 31-15A
SECTION 15, T9S-R24E
13 POINT PLAN

13. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access roads; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the proposed operations as stated herein will be performed by Hiko Bell Mining and Oil Company, and with its subcontractors, in conformity with this plan and the terms and conditions under which it is approved.

HIKO BELL MINING & OIL COMPANY

Robert E. Covington

ROBERT E. COVINGTON
MANAGER, EXPLORATION

DATE: July 8, 1986

10 POINT DRILLING PLAN
HIKO BELL MINING & OIL COMPANY
DIRTY DEVIL 31-15A WELL IN
SECTION 15, T9S-R24E,SLM,
UINTAH COUNTY, UTAH

---

1. Surface formation- Uinta

2. Estimated tops of important geological markers:

Green River	
Evacuation Creek member	714
Parachute Creek member	1,315
"H" Marker	2,666
"K" Marker	3,040
Wasatch formation	3,929

3. Expected mineral bearing formation"

Wasatch formation, 4200-5950'; potentially gas productive/

No water flows are expected.
No minerals are anticipated.

4. Proposed casing program:

Surface casing:	250': 8 5/8",K-55,24#,New
Production casing:	6,000': 5½"J-55, 15.5#, New

5. Blowout Preventors:

a. 12" x 3,000# Shafer blowout preventor and hydril with choke and kill line.
b. Pressure test to 1000 psi before drilling out below the surface casing. Test operation of BOP on each trip.

6. Circulating Medium:

a. Surface to 4,000': Fresh water
b. 4,000 to T.D. Kcl water with gel

7. Auxiliary Equipment:

a. Kelly Cock
b. Float at bit
c. Full opening,quick-close drill pipe valve on floor at all times.

HIKO BELL MINING & OIL COMPANY
DIRTY DEVIL 31-15A
SECTION 15, T9S-R24E
10 POINT PLAN, CONTD.

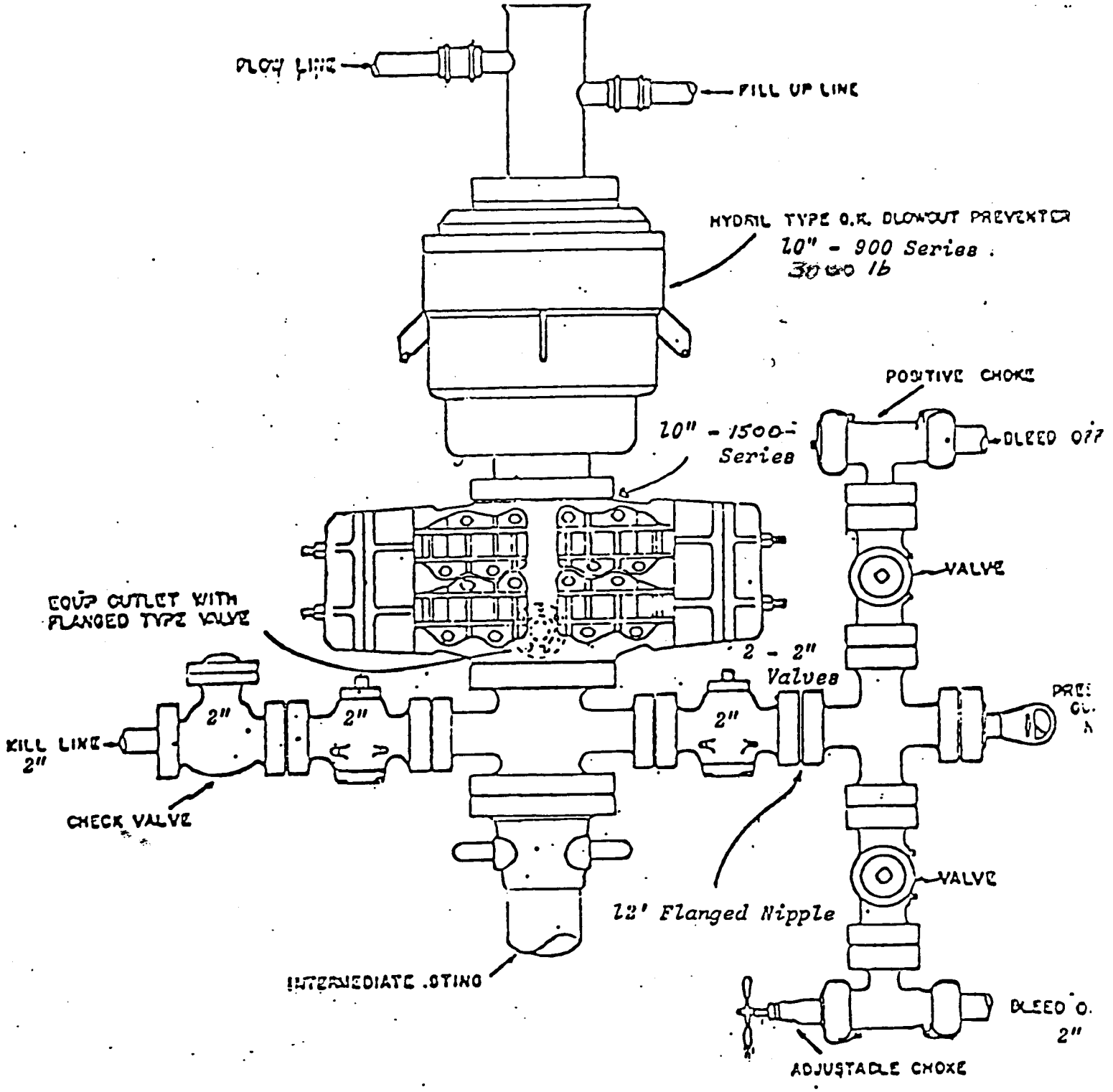
8. Testing and Logging:

   a. Cores: None planned.
   b. Tests: Possible drill stem test of Wasatch
   c. Logging: Dual Induction Laterlog with Gamma Ray, Gamma Ray-Compensated Formation Density Log with Caliper.

9. Anticipated Hazards:

   No abnormal pressures, temperatures, hydrogen sulfide gas or other hazards are anticipated.

10. Anticipated starting date : July 16, 1986 with anticipated total depth of 6,000'.



NOTE: BLOWOUT PREVENTER HAS DOUBLE RAMS; ONE BLIND AND ONE PIPE RAM.

Diag. A

071701

OPERATOR Hiko Bell Mining & Oil Co. DATE 7-11-86

WELL NAME Dirty Devil Unit 31-15A

SEC NW NE 15 T 9S R 24E COUNTY Uintah

43-047-31726	State
API NUMBER	TYPE OF LEASE

CHECK OFF:

✓ PLAT	✓ BOND	✓ NEAREST WELL
✓ LEASE	✓ FIELD	✓ POTASH OR OIL SHALE

PROCESSING COMMENTS:

Unit well.

Need water permit

State History - ok per Rick Hauk, Asst.

D.O. received - Dinosaur Oil & Gas

APPROVAL LETTER:

SPACING: ✓ 203 Dirty Devil UNIT ☐ 302

☐ CAUSE NO. & DATE ☐ 302.1

STIPULATIONS:

1- Water

2- State History

3- Reserve pit shall be lined with commercial grade bentonite at a minimum concentration of 2 lbs. per square foot.

4- The operator shall give the Division 48 hrs. notice upon completing construction of reserve pit and prior to placing fluids in the pit in order to inspect pit lining.

0218T

5.- The location shall be diked or trenched and culverts shall be installed and/or natural drainages diverted to prevent any influent to or effluent from the location.

071701

OPERATOR Hiko Bell Mining & Oil Co. DATE 7-11-86

WELL NAME Dirty Devil Unit 31-15A

SEC NW NE 15 T 9S R 24E COUNTY Uintah

43-047-31726	State
API NUMBER	TYPE OF LEASE

CHECK OFF:

[✓] PLAT [✓] BOND [✓] NEAREST WELL

[✓] Rich Hauck — Arch.
AERC
PO Box 853
Bly Ut 84010
292-7061

PROCESSING CO
Unit we
Need
State
D.O.

OTASH OR
IL SHALE

APPROVAL LETT

SPACING: [✓] 203 Dirty Devil UNIT [ ] 302

[ ] CAUSE NO. & DATE [ ] 302.1

STIPULATIONS:

1- Water

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3- Reserve pit shall be lined with commercial grade bentonite at a minimum concentration of 2 lbs. per square foot.

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0218T

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STATE OF UTAH

DIVISION OF OIL GAS & MINING

SALT LAKE CITY, UTAH

D E S I G N A T I O N O F O P E R A T O R

The undersigned is, on the records of the State Land Board, State of Utah, holder of the lease"

Serial No.: ML-28042

and hereby designates

HIKO BELL MINING & OIL COMPANY
P.O. DRAWER AB, VERNAL, UTAH, 84078

as his operator and local agent with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the authorized officer may serve written or oral instructions in securing compliance with the Operating Regulations with respect to the following described acreage to which this designation is applicable:

UTAH, UINTAH COUNTY

TOWNSHIP 9 SOUTH - RANGE 24 EAST, SLM:

Sec.15: Lots 1,2,3,4, N½, N½SE¼, NW¼SW¼, N½SW¼SW¼, SW¼SW¼SW¼, N½SE¼SW¼SW¼, SW¼SE¼SW¼SW¼
Containing 616.59 acres, more or less.

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance withh all regulations, lease terms, or orders of the State Land Board or its representative.

The lessee agrees to promptly notify the authorized officer of any change in the designation of operator.

DINOSAUR OIL & GAS, 363 East Main, Vernal, Utah, 84078

Managing Partner

Managing Partner

Managing Partner

Managing Partner

STATE OF UTAH

DIVISION OF OIL GAS & MINING

SALT LAKE CITY, UTAH

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TOWNSHIP 9 SOUTH - RANGE 24 EAST, SLM:

Sec.15: Lots 1,2,3,4, N½, N½SE¼, NW¼SW¼, N½SW¼SW¼, SW¼SW¼SW¼, N½SE¼SW¼SW¼, SW¼SE¼SW¼SW¼
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DINOSAUR OIL & GAS, 363 East Main, Vernal, Utah, 84078

Managing Partner

Managing Partner

Managing Partner

Managing Partner

STATE OF UTAH
DIVISION OF OIL, GAS & MINING
DRILLING LOCATION ASSESSMENT

OPERATOR Hiko Bell WELL NAME Dirty Devil Unit #31-15A

LOCATION: COUNTY Uintah SECTION 15 T 9S R 24E

QTR/QTR NW NE 616 F N L & 1829 F E L

SURFACE OWNERSHIP State MINERAL LEASE # ML-28042

ASSESSMENT PARTICIPANTS: DATE 08 / July / 1986

Bus Ridge w/ John E. Faucet Construction

Jack Boren " " " -cat operator

I. REGIONAL SETTING/TOPOGRAPHY

Colorado Plateau / Uintah Basin Rolling lowland with central intermittent drainage system off to the east side of proposed location

II. LAND USE

A. Current Surface Use:

Open rangeland

B. Proposed Surface Disturbance:

Roughly 175' X 175" surface disturbance for location

700' long access road due south from paved road to north east corner of location.

RECEIVED
JUL 11 1986
DIVISION OF
OIL, GAS & MINING

C. Affected Floodplains and/or Wetlands:

Not applicable

III. ENVIRONMENTAL PARAMETERS

A. Geology:

1. Surface Formation -

Uintah Formation at surface

2. Stability -

Very stable environmentally

B. Soils:

1. Soil Characteristics -

Sandy clays and gravels, good permeability, low clay content

2. Erosion/Sedimentation -

Not applicable

C. Water Resources:

1-2' across X 6-8" deep drainage coursing roughly south to north across East side of proposed location - of intermittent variety, plus some small surface feeders from the southwest to northeast

D. Flora/Fauna:

Flora - sagebrush, saltbrush, occasional bunch grass

Fauna - saw some insects

E. Cultural Resources/Archeology:

To be done this afternoon

F. Adequacy of Restoration Plans:

If P & A'd, will contour and rehab location

If produced, will fill in reserve pit, etc.

IV. RESERVE PIT

A. Characteristics:

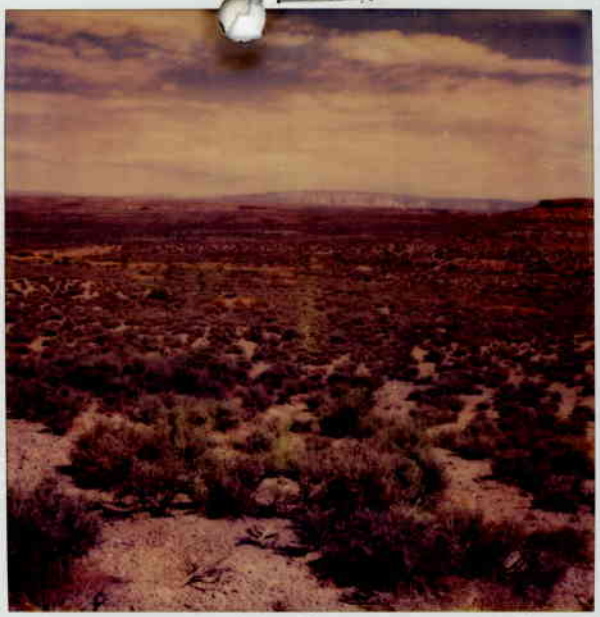
75' X 125' X 8' deep

B. Lining:

proposed clay lining - they intend to get drilling mud/clay mixture from another reserve pit (where?) to line this one.

V. OTHER OBSERVATIONS

VI. STIPU



Hiko Bell Dirty Devil Unit 31-15A
NE
CK. 8 July 86

Hiko Bell Dirty Devil Unit #31-15A
center state just to left of tailgate
on pick up E
C.K. 8 July 86

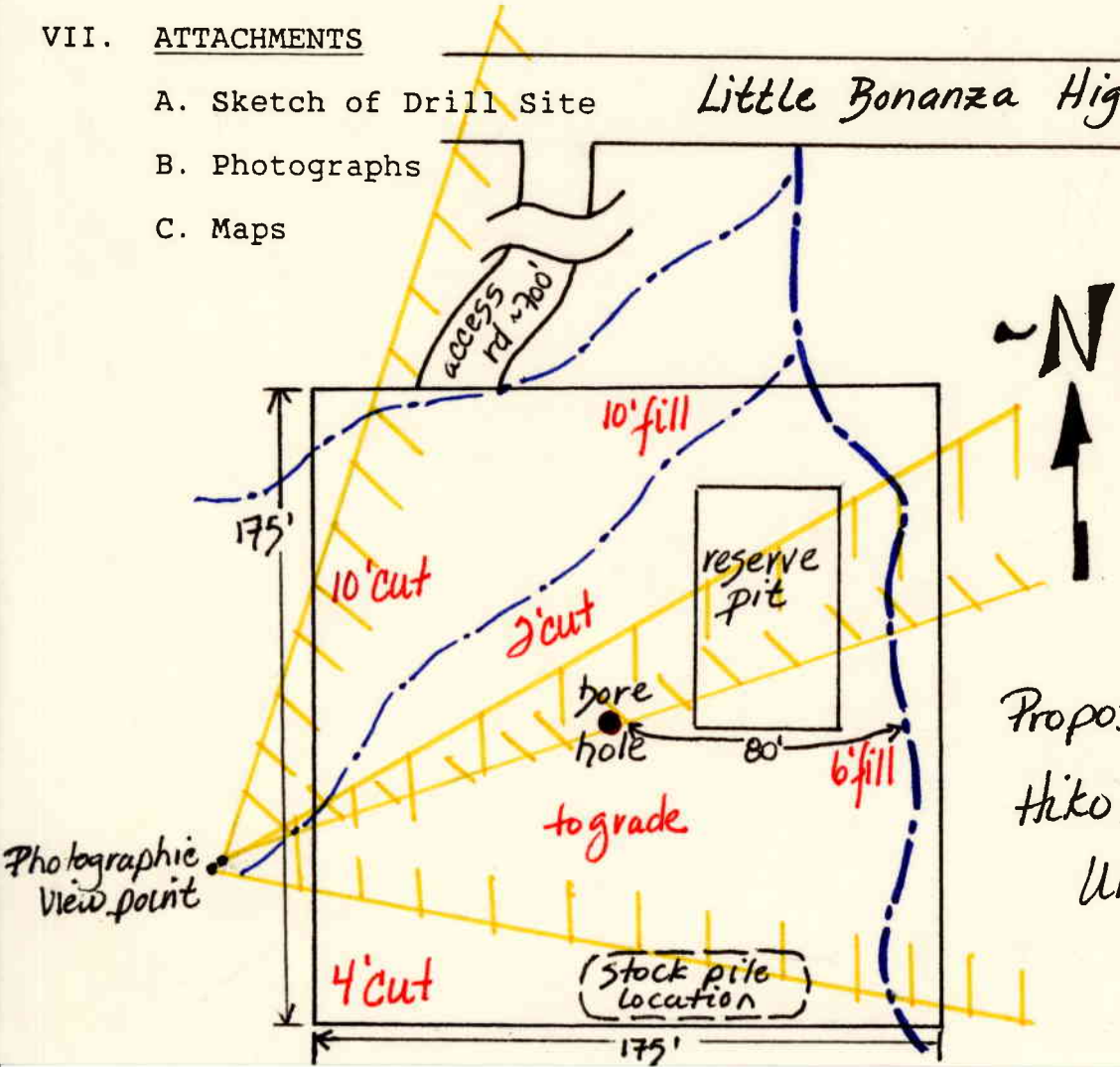
This sketch of the proposed drillsite is what they want to go by rather than what is proposed in the APD. This outlay suits the contour of the land better than what is drafted in the APD. V-door to the south.

VII. ATTACHMENTS

A. Sketch of Drill Site

B. Photographs

C. Maps



Proposed layout for Hiko Bell "Dirty Devil Unit #31-15A"

STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

July 14, 1986

Hiko Bell Mining & Oil Company
P. O. Drawer AB
Vernal, Utah 84078

Gentlemen:

Re: Well Name: Dirty Devil Unit 31-15A - NW NE Sec. 15, T. 9S, R. 24E
616' FNL, 1829' FEL - Uintah County, Utah

Approval to drill the referenced well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule 203, Oil and Gas Conservation General Rules, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

2. Prior to any ground-disturbing activity on state lands or lands owned or controlled by the state or its subdivisions, a cultural resource clearance report must be filed with and approved by the Division of State History, phone (801) 533-4563. A list of acceptable archaeological contractors is available from the Division of State History.

3. Reserve pit shall be lined with commercial grade bentonite at a minimum concentration of 2 lbs. per square foot.

4. The operator shall give the Division 48 hours notice upon completing construction of reserve pit and prior to placing fluids in the pit in order to inspect pit linings.

5. The location shall be diked or trenched and culverts shall be installed and/or natural drainages diverted to prevent any influent to or effluent from the location.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification to the Division within 24 hours after drilling operations commence.

2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.

3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.

4. Compliance with the requirements and regulations of Rule 311.3, Associated Gas Flaring, Oil and Gas Conservation General Rules.

5. Prior to commencement of the proposed drilling operations, plans for toilet facilities and the disposal of sanitary waste at each drill site shall be submitted to the local health department having jurisdiction. Any such drilling operations and any subsequent well operations must be conducted in accordance with applicable State and local health department regulations. A list of all local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 533-6163.

6. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-047-31726.

Sincerely,

R. J. Firth
Associate Director, Oil & Gas

as
Enclosures
cc: Division of State Lands
Branch of Fluid Minerals
D. R. Nielson

8159T

C1716

ARCHEOLOGICAL - ENVIRONMENTAL RESEARCH CORPORATION

P.O. Box 853 Bountiful, Utah 84010
Tel: (801) 292-7061, 292-9668

July 14, 1986

Subject: **CULTURAL RESOURCE EVALUATION OF THE PROPOSED DIRTY DEVIL UNIT NO. 31-15A IN THE BONANZA LOCALITY OF UINTAH COUNTY, UTAH**

43-047-31724

Project: Hiko Bell Mining & Oil Company - 1986 Drilling Program

Project No.: HBMO-86-1

Permit No.: Dept. of Interior 85-Ut-54937

Utah State U-86-AF-411s

To: Mr. Craig Caldwell, Hiko Bell Mining & Oil Co., Third West Main, Vernal, Utah 84078

Ms. Arleen Sollis, Utah State Division of Oil, Gas & Mining, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203

Info: Antiquities Section, Division of State History, 300 Rio Grande, Salt Lake City, Utah 84101

Mr. Lloyd Ferguson, District Manager, Bureau of Land Management, 170 South 500 East, Vernal, Utah 84078

GENERAL INFORMATION:

A cultural resource evaluation was made by F.R. Hauck of AERC on July 8, 1986, of the Hiko Bell Mining & Oil Company's proposed well location Dirty Devil Unit No. 31-15A. This location has been staked in the Bonanza locality of Uintah County, Utah, and is situated on Utah State lands.

The Dirty Devil Unit No. 31-15A is situated in the NE 1/4 of Section 15, Township 9 South, Range 24 East as shown on the attached map.

The project area is on rolling rangeland. The location is situated is an open saltbush environment containing sage, saltbush and greasewood species. The thin soils are of sand and clay-loam materials and contain sandstone fragments associated with the low sandstone outcrops and natural terraces of the locality. The elevation of the project area is 5300 feet above sea level with drainage toward the northwest into the Coyote Wash system.

FILE SEARCH:

A records search was conducted on 7-14-86 at the Utah State Antiquities Section in Salt Lake City. No known sites are situated in the project area. The National Register of Historic Places has been consulted and no registered properties will be affected by the proposed project.

FIELD METHODOLOGY:

To accomplish an intensive evaluation of the proposed well location, the archaeologist walked a series of 10 to 15 meter wide concentric transects around the flagged center stake. The access route was evaluated by walking two 10 meter wide transects parallel to the 500 foot long staked center line.

RESULTS:

No cultural material or activity loci of any historic or prehistoric period were observed during the evaluation.

CONCLUSION AND RECOMMENDATIONS:

AERC recommends that a cultural resource clearance be granted to Hiko Bell Mining & Oil Company relative to this well development based upon adherence to the following stipulations:

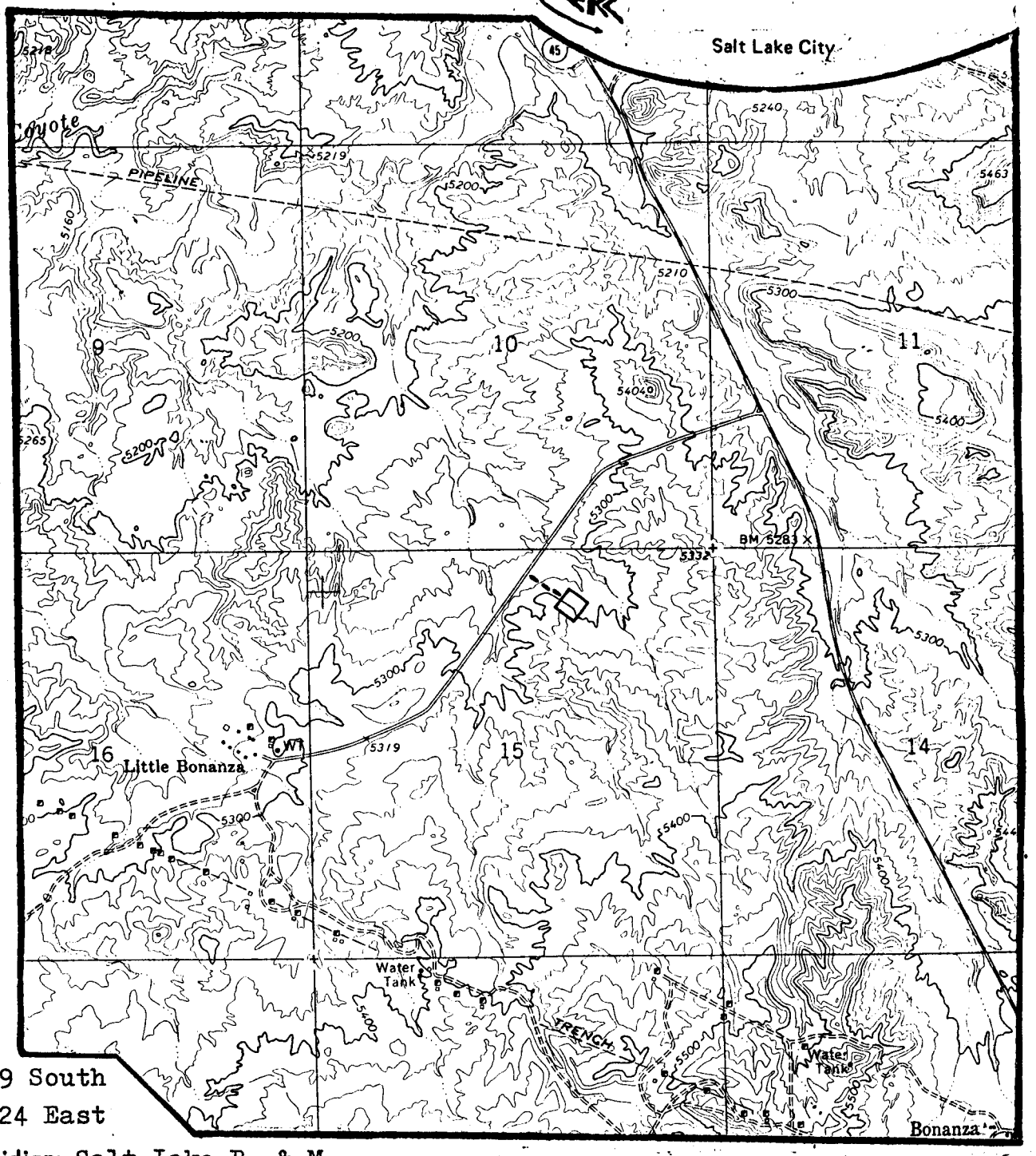
1. All vehicle traffic, personnel movement, and construction should be confined to the locations examined;

2. All personnel should refrain from collecting artifacts or from disturbing any cultural resources in the area; and

3. The principal authority should be consulted should cultural remains from subsurface deposits be exposed during exploratory and developmental work or if the need arises to relocate or otherwise alter the development area.

F.R. Hauck, Ph.D.
President & Principal
Investigator

ARCHEOLOGICAL-ENVIRONMENTAL RESEARCH CORPORATION



T. 9 South

R. 24 East

Meridian: Salt Lake B. & M.

Quad: Bonanza, Utah 7.5 minute-USGS

Project: HBMO-86-1

Series: Uinta Basin

Date: 7-14-86

Cultural Resource Survey of the Hiko Bell Dirty Devil Unit No. 31-15A in the Bonanza Locality of Uintah County, Utah

Legend:

Well Location

Access Route

N

2.64" = 1 mile

Scale

Expire 8-1-87

FILING FOR WATER IN THE STATE OF UTAH

102117

Rec. by BSS
Fee Paid $ 15.00
Platted 208000
Microfilmed 8-15-86
Roll # 1093 approx

APPLICATION TO APPROPRIATE WATER

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, application is hereby made to the State Engineer based upon the following showing of facts, submitted in accordance with the requirements of the Laws of Utah.

RECEIVED
JUL 25 1986
WATER RIGHTS
SALT LAKE

WATER USER CLAIM NO. 49 - 1395 **APPLICATION NO. T61914**

1. **PRIORITY OF RIGHT:** July 16, 1986 **FILING DATE:** July 16, 1986

2. **OWNER INFORMATION**
Name: Hiko Bell Mining and Oil Co. Interest: 100 %
Address: P.O. Box Drawer AB, Vernal, UT 84078
Temp. Appl. 7/21/86 to 9/20/86
The land is not owned by the applicant(s), see explanatory.

3. **QUANTITY OF WATER:** 10.0 acre feet (Ac. Ft.)

4. **SOURCE:** White River **DRAINAGE:** SE Unita Basin 43-047-31726
which is tributary to Green River
which is tributary to Colorado River
POINT(S) OF DIVERSION: **COUNTY:** Uintah
(1) S. 2000 feet, W. 2250 feet, from the NE Corner of Section 2,
Township 10 S, Range 24 E, SLB&M
Description of Diverting Works: Tank Truck & Pump
COMMON DESCRIPTION: 3 Miles S. of Bonanza Ut.

5. **NATURE AND PERIOD OF USE**
Oil Exploration From July 21 to September 20.

6. **PURPOSE AND EXTENT OF USE**
Oil Exploratio: Water for oil well drilling and completion

7. **PLACE OF USE**
The water is used in all or parts of each of the following legal subdivisions.

			North East Quarter				North West Quarter				South West Quarter				South East Quarter			
TOWN	RANGE	SEC	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼
9 S	24 E	15		X														

All locations in Salt Lake Base and Meridian

31-15A

EXPLANATORY

Water to be used for the drilling and completion of the 31-15A Dirty Devel Unit well located in the NWNE Sec.15, T9S,R24E,SLB&M

MICROFILMED

Appropriate

RECEIVED
JUL 21 1986
DIVISION OF
OIL, GAS & MINING

file

FILING FOR WATER IN THE STATE OF UTAH

102808
Rec. by _____
Fee Paid $ _____
Platted _____
Microfilmed _____
Roll # _____

APPLICATION TO APPROPRIATE WATER

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of the Laws of Utah.

43-047-31702
SGW

WATER USER CLAIM NO. 49 - 1395 **APPLICATION NO. T61914**

1. **PRIORITY OF RIGHT:** July 16, 1986 **FILING DATE:** July 16, 1986

2. **OWNER INFORMATION**
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Address: P.O. Box Drawer AB, Vernal, UT 84078
Temp. Appl. 7/21/86 to 9/20/86
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TOWN	RANGE	SEC	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼
9 S	24 E	15		X														

All locations in Salt Lake Base and Meridian

EXPLANATORY

Water to be used for the drilling and completion of the 31-15A Dirty Devel Unit well located in the NWNE Se 5, T9S,R24E,SLB&M

****

The applicant hereby acknowledges he/they are a citizen(s) of the United States or intends to become such a citizen.

****

The quantity of water sought to be appropriated is limited to that which can be beneficially used for the purpose herein described.

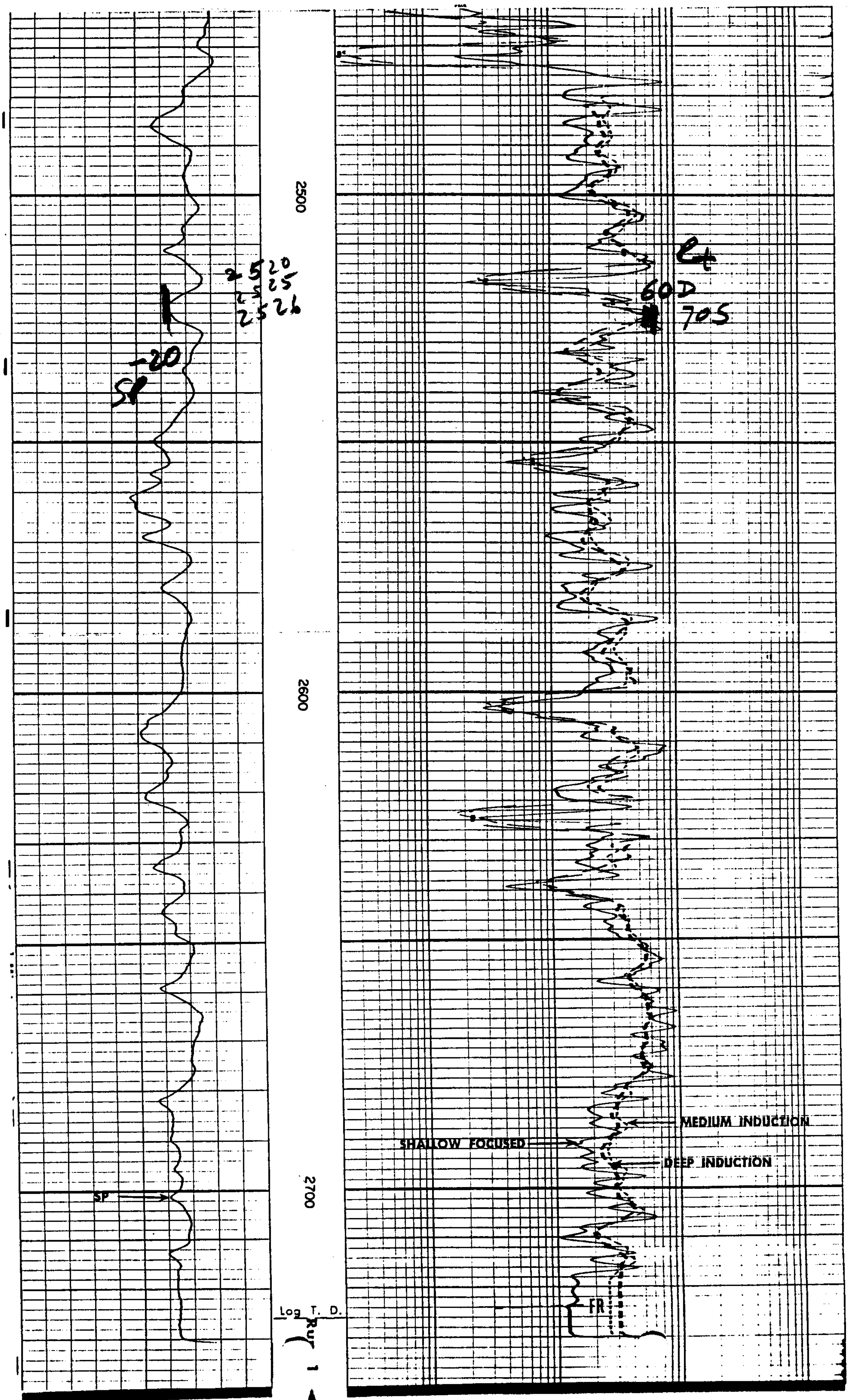
****

The undersigned hereby acknowledges that even though he/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained therein, at the time of filing, rests with the applicant(s).

Robert E Covington
Signature of Applicant

Sec-Treas
KIKO BELL MINING + OIL Co


2300
2400
Mech SP Shift



2500
2600
2700
SP
-20
SP
2520
2525
2526
Rt
60D
70S
MEDIUM INDUCTION
SHALLOW FOCUSED
DEEP INDUCTION
FR
Log T. D.
Run 1

Duane Immel EPS Resources

Chief Ex. officer

Water Permit
49-1395 (T61914)

072801

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION API #43-047-31726

NAME OF COMPANY: Hiko Bell Mining & Oil Company

WELL NAME: Dirty Devil Unit #31-15A

SECTION NW NE 15 TOWNSHIP 9S RANGE 24E COUNTY Uintah

DRILLING CONTRACTOR Leon Ross

RIG #

SPUDDED: DATE 7-22-86

TIME 8:15 PM

HOW Dry Hole Digger

DRILLING WILL COMMENCE

REPORTED BY Bud Covington

TELEPHONE #

DATE 7-23-86 SIGNED RJF

2

Form DOGC-1a

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

072813

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS

ML-28042
5. Lease Designation and Serial No.

A M E N D E D A P P.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. If Indian, Allottee or Tribe Name

1a. Type of Work
DRILL XX DEEPEN ☐ PLUG BACK ☐

7. Unit Agreement Name
DIRTY DEVIL UNIT

b. Type of Well
Oil Well ☐ Gas Well XX Other Single Zone ☐ Multiple Zone ☐

8. Farm or Lease Name

2. Name of Operator
HIKO BELL MINING & OIL COMPANY

9. Well No.
31-15A

3. Address of Operator
P.O.DRAWER AB VERNAL, UTAH, 84078

10. Field and Pool, or Wildcat
BONANZA

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface NW¼ NE¼ SEC.15, (616FNL & 1829 FEL)

11. Sec., T., R., M., or Blk. and Survey or Area
Sec.15, T9S-R24E, SLM

At proposed prod. zone SAME

12. County or Parrish
UINTAH

13. State
UTAH

14. Distance in miles and direction from nearest town or post office*
Bonanza is 4 mi. south

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 616'

16. No. of acres in lease
616.59

17. No. of acres assigned to this well
320

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft. NONE

19. Proposed depth
6,000'

20. Rotary or cable tools
ROTARY

21. Elevations (Show whether DF, RT, GR, etc.)
5,284', grd.

22. Approx. date work will start*
JULY 22, 1986

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12¼"	9 5/8"	J-55, 36.0#	250	CEMENT TO SURFACE
7 7/8"	5½"	J-55, 15.5#	6,000"	2 STAGE & CIRCULATE CEMENT TO SURF.

PROPOSE TO AMEND APPROVED APPLICATION BY CHANGING HOLE SIZE to 12¼" AND SURFACE CASING TO 9 5/8" IN PLACE OF 8 5/8".

RECEIVED
JUL 23 1986

DIVISION OF
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
Signed Robert E. Barrington Title MANAGER, EXPLORATION Date 7-21-86

(This space for Federal or State office use)

Permit No. Approval Date

Approved by Title

Conditions of approval, if any:

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 7-25-86
BY: John R. Baza

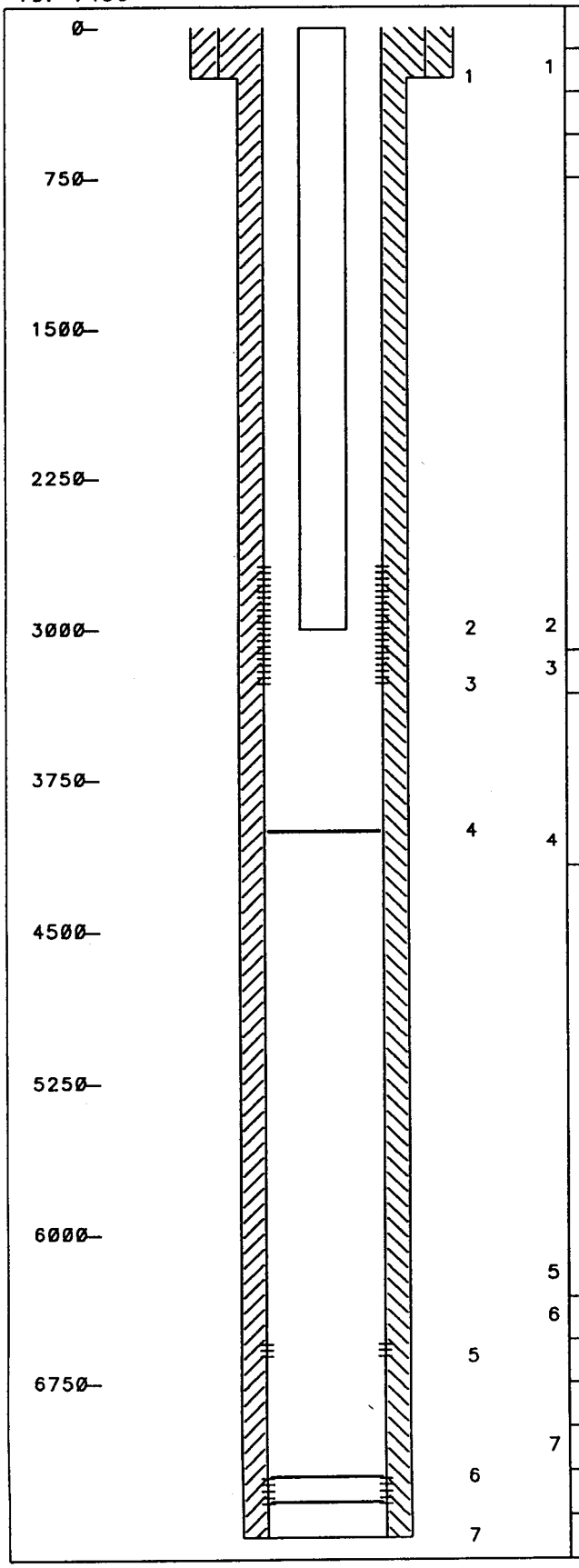
*See Instructions On Reverse Side

Lease:DIRTY DEVIL
Well #:31-15A

Spud Date: 81/18/1986
KB: 5284
TD: 7496

Comp Date: 13/81/1907
ELEV: 5274
PBTD: 4000

API #: 43-047-31726-
Location: Sec 15 Twn 09S Rng 24E
County: UINTAH
State: UT
Field: BONANZA
Operator: VALLEY OPERATING INC.



	Start	End	Size	Length	Description
1	0.0	250.0	12.250	250.0	Hole: SURFACE
	0.0	250.0			Cement: 200SX CL G
	0.0	250.0	9.625	250.0	Casing: SURFACE 36# CASING
2	0.0	3000.0	2.375	3000.0	Tubing:
3	2686.0	3282.0		596.0	Perf: 2SPF
4	4000.0	4008.0	5.500	8.0	Plug: CIBP BO PLUG SHOWN BUT PBTD SAYS 4000' ASSUME CIBP
5	6552.0	6617.0		65.0	Perf: FRAC W/90000# 20/40SD & 190TONS C02
6	7200.0	7208.0	5.500	8.0	Plug: CIBP
5	7320.0	7328.0	5.500	8.0	Plug: CIBP
	7211.0	7355.0		144.0	Perf: 2SPF
7	250.0	7496.0	7.875	7246.0	Hole: PRODUCTION
6	0.0	7496.0		7496.0	Cement: 1379 SX. CL G
7	0.0	7496.0	5.500	7496.0	Casing: PRODUCTION 17#

080401

HIKO BELL MINING & OIL COMPANY

POST OFFICE DRAWER AB ★ VERNAL, UTAH 84078 ★ TELEPHONE 789-3233 AREA CODE (801)

July 23, 1986

Division of Oil, Gas & Mining
State of Utah, Natural Resources
3 Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah, 84180-1203

Attn.: Ron Firth

Re: DIRTY DEVIL UNIT
Well No. 31-15A
Sec.15, T9S-R14E, SLM
Uintah County, Utah
API NO. 43-047-31726

Dear Mr. Firth:

As a follow up of our telephone conversation this morning informing you of the spudding of the above described well, this is to officially notify you that the 31-15A well was spudded at 8:15 P.M. by Leon Ross Drilling Company on State of Utah Oil & Gas Lease ML-28042.

I have also called the BLM in Vernal and notified them.

Thank you for your consideration in this matter.

Very truly yours,

Robert E. Covington

Robert E. Covington, Sec.-Treas.

cc: NGC, Vernal
BLM, Vernal
Chorney Oil Company
EP Operating Company
Champlin Petro,eum Company
BLM, Salt Lake City

Form OGC-1b

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

090908

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR: HIKO BELL MINING & OIL COMPANY

3. ADDRESS OF OPERATOR: P.O DRAWER AB. VERNAL, UTAH, 84078

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface: NW¼ NE¼ SEC.15, (616FNL & 1829 FEL)

5. LEASE DESIGNATION AND SERIAL NO.: ML-28042

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: DIRTY DEVIL UNIT

8. FARM OR LEASE NAME:

9. WELL NO.: 31-15A

10. FIELD AND POOL, OR WILDCAT: BONANZA

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC.15, T9S-R24E, SLM

14. PERMIT NO.: 43-047-31726

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 5,284 grd.

12. COUNTY OR PARISH: UINTAH

13. STATE: UTAH

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	XX	(Other)			
(Other)	☐			(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

OPERATOR PROPOSES TO CHANGE PLANS AND DRILL WELL TO DEPTH OF 7500 FEET TO TEST MESAVERDE FORMATION.

OPERATOR PLANS TO RUN 4½" J-55 11.60# and N-80 11.60# NEW CASING RATHER THAN THE ORIGINALLY PROPOSED 5½" CASING.

WIN-ROCK DRILLING COMPANY RIG #7 CONTRACTOR.

RECEIVED
SEP 04 1986
DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED Robert E. Bennett TITLE SECRETARY_TREAS. DATE 9-2-86

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 9-8-86
BY: John R. Baza

*See Instructions on Reverse Side

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED
OCT 17 1986
DIVISION OF OIL, GAS & MINING

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR
Dirty Devil, I.P. (Hiko Bell)

3. ADDRESS OF OPERATOR
10200 E. Girard Ave. Suite B-225 Denver, Colorado 80231

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
616' FNL, 1829 FEL
NW¼ NE¼ Section 15, T9S, R24E
SLM

5. LEASE DESIGNATION AND SERIAL NO.
ML-28042

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
-

7. UNIT AGREEMENT NAME
Dirty Devil Unit

8. FARM OR LEASE NAME

9. WELL NO.
31-15A

10. FIELD AND POOL, OR WILDCAT
Bonanza

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 15, T9S, R24E, SLM

12. COUNTY OR PARISH
Uintah

13. STATE
Utah

14. PERMIT NO.
43-047-31726

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5284 GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF		PULL OR ALTER CASING		WATER SHUT-OFF		REPAIRING WELL	
FRACTURE TREAT		MULTIPLE COMPLETE		FRACTURE TREATMENT		ALTERING CASING	
SHOOT OR ACIDIZE	XX	ABANDON*		SHOOTING OR ACIDIZING		ABANDONMENT*	
REPAIR WELL		CHANGE PLANS		(Other)			XX
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Operator plans to perforate the Mesaverde Formation:

7344-55	11'	2 shots/ft
7324-38	14'	"
7283-7320	37'	"
7211-28	17'	"

Operator plans to acidize with 1000 gal of 15% HCl and frac with 20,000# 20-40 mesh sand using 500,000 SCF Nitrogen.

18. I hereby certify that the foregoing is true and correct

SIGNED Edward Neibauer TITLE Engineer DATE 9-25-86

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE 10-21-86
BY: John R. Baza

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

IN REPLY REFER TO

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
324 SOUTH STATE, SUITE 301
SALT LAKE CITY, UTAH 84111-2303

October 9, 1986

Dirty Devil, L.P.
10200 East Girard Ave., Suite E225
Denver, Colorado 80231

Re: Successor of Operator
Dirty Devil Unit
Uintah County, Utah

Gentlemen:

We received an indenture dated October 8, 1986, whereby Hiko Bell Mining and Oil Company resigned as Operator and Dirty Devil, L.P. was designated as Operator for the Dirty Devil Unit Agreement, Uintah County, Utah.

This indenture was executed by all required parties. The signatory parties have complied with Section 6 of the unit agreement. The instrument is hereby accepted effective as of October 9, 1986. Please advise all interested parties of the change in unit operator.

Sincerely,

Howard A. Lemm
Chief, Branch of Fluid Minerals

Enclosure

022014

THE DIRTY DEVIL, L.P. - OPERATOR
GAS WELLS IN THE DIRTY DEVIL UNIT

	Well Name	Location	Lease #
1.	Well No. 31-15A	NW/4NE/4 Section 15 T9S-R24E SLM Uintah County, Utah API #4304731726	ML-28042 SGW
2.	Well No. 32-31	SW/4NE/4 Section 31 T9S-R24E SLM Uintah County, Utah API #4304731010	U-9215
3.	Well No. 44-5	SE/4SE/4 Section 5 T10S-R24E SLM Uintah County, Utah API #4304730280	U-1207
4.	Well No. 11-29	NW/4NW/4 Section 29 T9S-R24E SLM Uintah County, Utah API #4304731617	ML - 22161
5.	Well No. 23-20	NE/4SW/4 Section 20 T9S-R24E SLM Uintah County, Utah API #4304731009	U-31266
6.	Well No. 23-17	NE/4SW/4 Section 17 T9S-R24E SLM Uintah County, Utah API #4304730568	U-31266
7.	Well No. 22-27	SE/4NW/4 Section 27 T9S-R24E SLM Uintah County, Utah API #4304731507	SL-071725-C
8.	Well No. 41-9	NE/4NE/4 Section 9 T9S-R24E SLM Uintah County, Utah API #4304730339	U-5217

DIRTY DEVIL UNIT
GAS WELLS

9. Well No. 1-18	NW/4NE/4 Section 18 T9S-R24E SLM Uintah County, Utah API #4304730124	U-0145459

022014

EPS Resources Corporation

Kennedy Center
10200 E. Girard Ave. Bldg. B. Suite 225
Denver, Colorado 80231
(303) 696-2654

November 12, 1986

Ms. Claudia L. Jones
State of Utah Natural Resources
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Dear Claudia:

As per our conversation, the Dirty Devil, L.P. is Operator of the Dirty Devil Unit. The Unit was formed August 17, 1984 when the Participating Area was approved for Unit well no. 22-27 on October 15, 1986.

The Dirty Devil, L.P. will be reporting production quantities as of November 1, 1986, for all wells within the unit. To expedite reporting of the Dirty Devil 11-29 well, enclosed are production reports for September and October. The well has been tested and is awaiting a pipeline. Production of the well is expected to commence in December.

Sincerely,

DIRTY DEVIL, L.P.

Steven Porter

SP/ng

IN REPLY REFER TO

3160
(U-922)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE
324 SOUTH STATE, SUITE 301
SALT LAKE CITY, UTAH 84111-2303

October 15, 1986

Dirty Devil, L.P.
10200 East Girard Ave.
Suite E 225
Denver, CO 80231

Re: Wasatch Formation Participating Area
Dirty Devil Unit
Uintah County, Utah

Gentlemen:

Your application of August 22, 1986, originally filed by Hiko Bell Mining and Oil Company, requests an Initial Wasatch Formation Participating Area "A" of 320.00 acres. The application is to be named the Wasatch Formation Participating Area and is approved effective as of August 17, 1984, pursuant to Section 11 of the Dirty Devil Unit Agreement, Uintah County, Utah.

This participating area is based upon the completion of Unit Well No. 22-27, in the SE¼NW¼, Section 27, T. 9 S., R. 24 E., SLM, Federal Unit Tract No. 1, Lease No. SL-071725C, as being a well capable of producing unitized substances in paying quantities. Enclosed is a schedule showing the lands and their percentage of allocation in the participating area. At this time, leases U-14233 and U-38433 are considered unleased tracts, pending outcome of appeals, and should not receive any allocation of revenues.

Copies of the approved request are being distributed to the appropriate agencies and one copy is returned herewith. Please advise all interested parties of the establishment of the Wasatch Formation Participating Area.

In accordance with Section 11 and 32 of the Dirty Devil Unit, the Devils Playground Unit No. 14-08-0001-16086 automatically terminated August 17, 1984, and associated participating areas with the Devils Playground Unit are now incorporated into the Dirty Devil Unit.

Sincerely,

Acting

Howard A. Lemm
Chief, Branch of Fluid Minerals

Enclosure

EPS Resources Company

Kennedy Center
10200 E. Girard Ave. Bldg. B. Suite 225
Denver, Colorado 80231
(303) 696-2654

February 12, 1987

Bureau of Land Management
U. S. Department of Interior
170 South 500 East
Vernal, Utah 84078

Gentlemen:

Please find enclosed the **Well Completion Reports and Logs**, in duplicate, for the following three wells, located in Uintah County, Utah:

Well No. 23-20, Lease No. U-31266, Sec. 20, T9S-R24E
Well No. 23-17, Lease No. U-31266, Sec. 17, T9S-R24E
Well No. 31-15A, Lease No. ML-28042, Sec. 15, T9S-R24E

If you need any further information, please call.

Sincerely,

THE DIRTY DEVIL, L.P.

Edward Neibauer

cc: State of Utah, Natural Resources
Champlin Petroleum Company
Chorney Oil Company
Enserch Exploration, Inc.
Natural Gas Corp. of California

EN/ng

Form 3160-4
(November 1983)
(formerly 9-330)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

RECEIVED
FEB 17 1987
DIVISION OF OIL, GAS & MINING

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: ML - 28042

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 022008

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

7. UNIT AGREEMENT NAME: Dirty Devil

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

8. FARM OR LEASE NAME:

2. NAME OF OPERATOR: Dirty Devil, L.P.

9. WELL NO.: 31-15A

3. ADDRESS OF OPERATOR: 10200 E. Girard Ave., Suite B-225, Denver, Colorado 80231 (303)696-2654

10. FIELD AND POOL, OR WILDCAT: Bonanza

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 616' FNL, 1829' FEL NW¼NE¼ Section 15, T9S-R24E
At top prod. interval reported below: Same
At total depth: Same

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 15, T9S-R24E

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
43-047-31726	NA	Uintah	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
8-18-86	9-10-86	1-30-87	5284'GR	5274'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
7496'			→	0-TD	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Wasatch Formation: 6552-58'; 6599-6602'; 6612-17'

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN rec'd 9.29.86
FDC/CNL; DIL/SFL; Cement Bond Log

27. WAS WELL CORED: No

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#	250'	12-½"	200 SX Class "G"	-
4-½"	17#	7496'	7-7/8"	1379 SX Class "G"	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-3/8"	6530'	-

31. PERFORATION RECORD (*Interval, size and number*)
7211-28' (17') 2 SPF CIBP @ 7200'
7283-7320' (37') 2 SPF
7324-38' (14') 2 SPF
7344-7355' (11') 2 SPF CIBP @ 7320'

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
6552-6558', 6599-6602', 6612-6617'	Frac'd w/ 90,000# 20/40 Mesh sand and 190 tons CO_2

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
Shut-in	Flowing	Shut-in

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
1-20-87	24	12/64	→	5 BO	700 MCF	2 BW	140,000

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
1300	1500	→	5 BO	700 MCF	2 BW	48°

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
Vented

TEST WITNESSED BY: J. Mercer

35. LIST OF ATTACHMENTS
Geological Report

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Edward Trotter TITLE Engineer DATE 2-1-87

***(See Instructions and Spaces for Additional Data on Reverse Side)**

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

WELL SUMMARY REPORT
==========

EPS RESOURCES INC.
DIRTY DEVIL WELL 31-15A
SEC.15,T9S_R24E,SLM,
UINTAH CO., UTAH

The EPS Resources, Inc. Well No.31-15A drilled out from under surface casing on August 19, 1986. No shows were encountered in the Uinta formation. The Evacuation Creek member of the Green River formation was topped at 800 feet and the Parachute Creek member at 1400 feet. Lost circulation was encountered at 1904. A drilling break in the Green River formation which was 500 feet below the "H" Marker exhibited a 200 unit gas show in a fine grained sandstone and could be oil productive. Although the sand appears tite, extensive fracturing common to this interval should increase the effective porosity. Another tite sand was drilled from 3754-3768 and the samples showed oil staining with 110 units of gas increase. The electric logs showed this to be tite but the drilling time indicates that porosity be better than indicated.

The Wasatch formation was encountered at 3882. A drilling break from 4306 to 4320 showed an increase of gas to 340 units in a light grey, fine to medium grained sand. A sand from 4620-4630 had a 90 unit gas increase and the logs indicate a porosity of 11% and was graded as a "C+". In the lower part of the Wasatch a sand from 5512-5526 had oil staining in a fine to medium grained sand with 175 unit increase in gas and was graded as a class "B" zone.

The Farrer facies of the Mesaverde group was encountered at 5570. The first show in this facies was in a sand from 5948-5976 with the logs showing 16% porosity and a 40 unit gas increase with oil staining and a show of heavy, black oil on the pits.

A sand with a thickness of only 9 feet was drilled from 6470 to 6479 and had a 50 unit gas increase and the sand was oil stained, with grain size being fine to very fine with yellow fluorescence and fast,yellow cut.

The Neslin facies of the Mesaverde group was topped at 6490 feet. A 400 unit gas increase was noted in a sand from 6550-6560. On the logs the sand showed a resistivity of 100 ohms with 14% porosity with oil staining and was graded as an "A". A 360 unit increase was detected in a sand from 6598-6605 also with 100 ohms resistivity. The hole was out of gauge and no S_w or porosity was determined for this interval. Another sand from 6840-6890 was drilled which had a 200 to 300 unit gas increase over background with a calculated porosity of 12-14% and was graded as an "A" zone. The sand was white to light grey, fine to medium grained with a light blue fluorescence and weak cut. An 80 unit gas increase was detected from 7211-7228 with a porosity of 13% and was given a grade of "B".

The Sego sandstone member of the Mesaverde group was topped at 7282. The upper 13 feet of the sand from 7287-730[illegible] had in increase of 400 units of gas with crossover on the FDC log. Porosity appears to be 8 to 10% with 60 ohms and was graded as a "B". The next 17 feet of the Sego, from 7300 to 7317 showed a porosity increase to 10-12% with 50 ohms resistivity but had no crossover on the FDC log. The interval from 7322-7356 showed an average porosity of 12% with the resistivity reading 30 to 40 ohms and had an 80 unit gas increase and was graded as a "C" zone of interest.

CONCLUSION:

1. GREEN RIVER FORMATION:

   Interval 3274-3284 should be oil productive.

2. WASATCH FORMATION:

   Wasatch sand 4306-4320, 5512-5526 should be gas productive, with some distillate.

3. FARRER FACIES OF MESAVERDE GROUP:

   Interval 5948-5976 should be oil productive.

   Interval 6470-6479 should be gas productive.

4. NESLIN FACIES OF MESAVERDE GROUP:

   Interval 6550-6560 and 6598-6605 should be gas productive.

   Interval 6840-6890 is best zone in well and will be gas productive.

   Interval 7211-7228 appears potentially gas productive.

5. SEGO SANDSTONE MEMBER OF MESAVERDE:

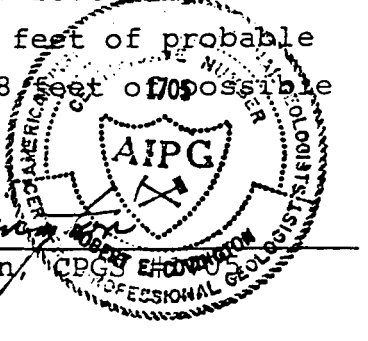
   Upper 13 feet of Sego will be gas productive.

   Next 17 feet of Sego probably gas productive.

   Interval 7322-7338 possibly gas productive.

   Interval 7344-7356 possibly also gas productive.

In review, the 31-15A well has a 10 foot potential oil sand in the Green River and a 20 foot oil sand in the Farrer facies of the Mesaverde group, for 30 net feet of potential oil pay. The Wasatch formation has 28 feet of probable gas sands and 10 feet of possible. The Farrer facies has37 feet of probable gas sand and 20' of possible. The Neslin has 74 feet of probable gas sand and the Sego has 30' of probable and 28 feet of possible gas producing sand.



Robert E. Covington, CPG 1705

August 22, 1986

Vernal, Utah

WELL HISTORY
DIRTY DEVIL 31=15A

FORMATION TOPS

FORMATION	DEPTH	MEAN SEA ELEVATION (KB)
UINTA	SURFACE	+5297
GREEN RIVER FM.:		
EVACUATION CK.MEMBER	800	+4497
PARACHUTE CK. MEMBER	1400	+3897
"H" MARKER	2785	+2512
"L" MARKER	3568	+1729
"B" MARKER	3650	+1647
"Y" MARKER	3720	+1577
WASATCH FM	3882	+1415
MESAVERDE GROUP:		
FARRER FACIES	5570	-273
NESLIN FACIES	6490	-1193
SEGO SANDSTONE	7282	-1985
BUCK TONGUE OF MANCOS	7358	-2061
TOTAL DEPTH	7496	-2199

EVALUATION OF OIL & GAS SHOWS AND ELECTRIC LOGS

DIRTY DEVIL 31-15A

NO.	FORMATION	ZONE	INTERVAL	NET FT.	S_w	POROSITY	OHMS	REMARKS	GRADE OF SHOW
I	MESAVERDE	SEGO	7322-7338	16	68	12%	30	80 UNITS	"C"
			7344-7356	12	64	12%	40	?	"C"
II.	MESAVERDE	SEGO	7287-7300	13	65	8-10%	60	400 UNITS	"B"
			7300-7317	17	60	10-12%	50	NO X OVER	"B"
III.	MESAVERDE	NESLIN	7211-7228	17	60	13%	45	160/80	"B"
			6840-6890	40	45	12-14%	60	200-300/50	"A"
IV.	MESAVERDE	NESLIN	6598-6605	7	? (HOLE OUT OF GAUGE)	?	100	360/100	"B"
			6550-6560	10	30	14%	100	400/10 WITH OIL STAINING	"A"
v.	MESAVERDE	FARRER	6470-6479	9	50	15%	30	ALMOST X/OVER W/OIL STAINING W/50/5 UNITS	"B"
VI.	MESAVERDE	FARRER	5948-5976	28	58	16%	40	40 UNITS WITH OIL ON PITS	"B"
VII.	MESAVERDE	FARRER	5824-5844	20	60	16%	36	NO SHOW	"C"
VIII.	WASATCH	LOWER	5512-5526	14	60	16%	36	175/5 UNITS W/OIL STAINING	"B+"
IX.	WASATCH	MIDDLE	4620-4630	10	50	14%	45	90 UNIT INCR.	"C+"
X.	WASATCH	MIDDLE	4306-4320	14	50	16%	35	350/5 W/XOVER	"A"
XI.	GREEN RIVER	LOWER, "I"ZONE	3274-3284	10	50	20%	36	200/5 UNITS W/BROWN OIL STAIN; EXC.CUT	"A" (OIL)

COMPANY: Dirty Devil, LP UT ACCOUNT #N5021 SUSPENSE DATE:

TELEPHONE CONTACT DOCUMENTATION

CONTACT NAME: Steve Porter

CONTACT TELEPHONE NO.: 1-303-696-2654

SUBJECT: Request logs: CBL have received FDC/CNL DIL/SFL

Dirty Devil 31-15A
43 047 31726
9S 24E 15

(Use attachments if necessary)

RESULTS: Left message for Steve

870408 Ed will send CBL

(Use attachments if necessary)

CONTACTED BY: JC

DATE: 4-1-87

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.
ML-28042 SGW

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
051409

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER

7. UNIT AGREEMENT NAME
Dirty Devil

2. NAME OF OPERATOR
Dirty Devil, L.P.

8. FARM OR LEASE NAME
State

3. ADDRESS OF OPERATOR
10200 E. Girard Ave., Bldg B, Suite 225 Denver, CO 80231 (303) 696-2654

9. WELL NO.
31-15A

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
616' FNL, 1829' FEL NW 1/4 NE 1/4
Section 15 T9S R24E SLM

10. FIELD AND POOL, OR WILDCAT
Bonanza

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 15 T9S R24E

14. PERMIT NO.
43-047-31726

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5284' GR

12. COUNTY OR PARISH
Uintah

13. STATE
Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF		PULL OR ALTER CASING		WATER SHUT-OFF		REPAIRING WELL	
FRACTURE TREAT		MULTIPLE COMPLETE		FRACTURE TREATMENT		ALTERING CASING	
SHOOT OR ACIDIZE	X	ABANDON*		SHOOTING OR ACIDIZING		ABANDONMENT*	X
REPAIR WELL		CHANGE PLANS		(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Operator plans to perforate the following intervals in the Wasatch Formation:

6514-6526	12'
6484-6488	4'
6442-6446	4'
6433-6437	4'
6404-6408	4'
6366-6372	6'
6346-6350	4'
6281-6286	5'
	43'

Operator plans to stimulate (frac) the above intervals using a cross-linked gel, 20/40 mesh sand media.

RECEIVED
MAY 08 1987
DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct
SIGNED Edward Mattaner TITLE Engineer DATE May 7, 1987

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 5-11-87
BY: John R. Bay

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 3160-4
(November 1983)
(formerly 9-330)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE (See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

2

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

RECEIVED
MAY 9 1988
DIVISION OF OIL, GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.: ML 28042
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME: Dirty Devil
8. FARM OR LEASE NAME: State
9. WELL NO.: 31-15A
10. FIELD AND POOL, OR WILDCAT: Bonanza
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 15 T9S-R24E

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other
b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☒ Other

2. NAME OF OPERATOR: Dirty Devil, LP c/o EPS Resources Company
3. ADDRESS OF OPERATOR: 5655 S. Yosemite Ste: 460 Englewood, CO 80111 303-721-7920
4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 616' FNL, 1829' FEL NW4NE4 Section 15 T9S-R24E
At top prod. interval reported below: Same
At total depth: Same

14. PERMIT NO.: 43-047-31726 — DATE ISSUED: NA
12. COUNTY OR PARISH: Uintah
13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
8-18-86	9-10-86	4-15-88	5284' FR	5274'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
7496'	4000'		→	0-TD	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: Green River (3276-82, 2801-05, 2686-90)
25. WAS DIRECTIONAL SURVEY MADE: No
26. TYPE ELECTRIC AND OTHER LOGS RUN: FDC/CNL; DIL/SPL; CBL
27. WAS WELL CORED: No

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9 5/8"	36#	250'	12 1/2"	200 SX Class "G"	0
4 1/2"	17#	7496'	7 7/8"	1379 SX Class "G"	0

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	3000'	None

31. PERFORATION RECORD (*Interval, size and number*)
3276-3282
2801-2805 } 2 SPF
2686-2690

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3282-2686	3000 Gals. KCL/Condensate

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
Shut-in (SI)	Flowing	SI

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
4-20-88	24	Open		5	0	15	0

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
150	150		5	0	15	24°

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): No Gas
TEST WITNESSED BY: J. Mercer

35. LIST OF ATTACHMENTS: Note: Well History and Logs Previously Sent

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Edward Mattaver TITLE Petroleum Engineer DATE 5-5-88

***(See Instructions and Spaces for Additional Data on Reverse Side)**

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

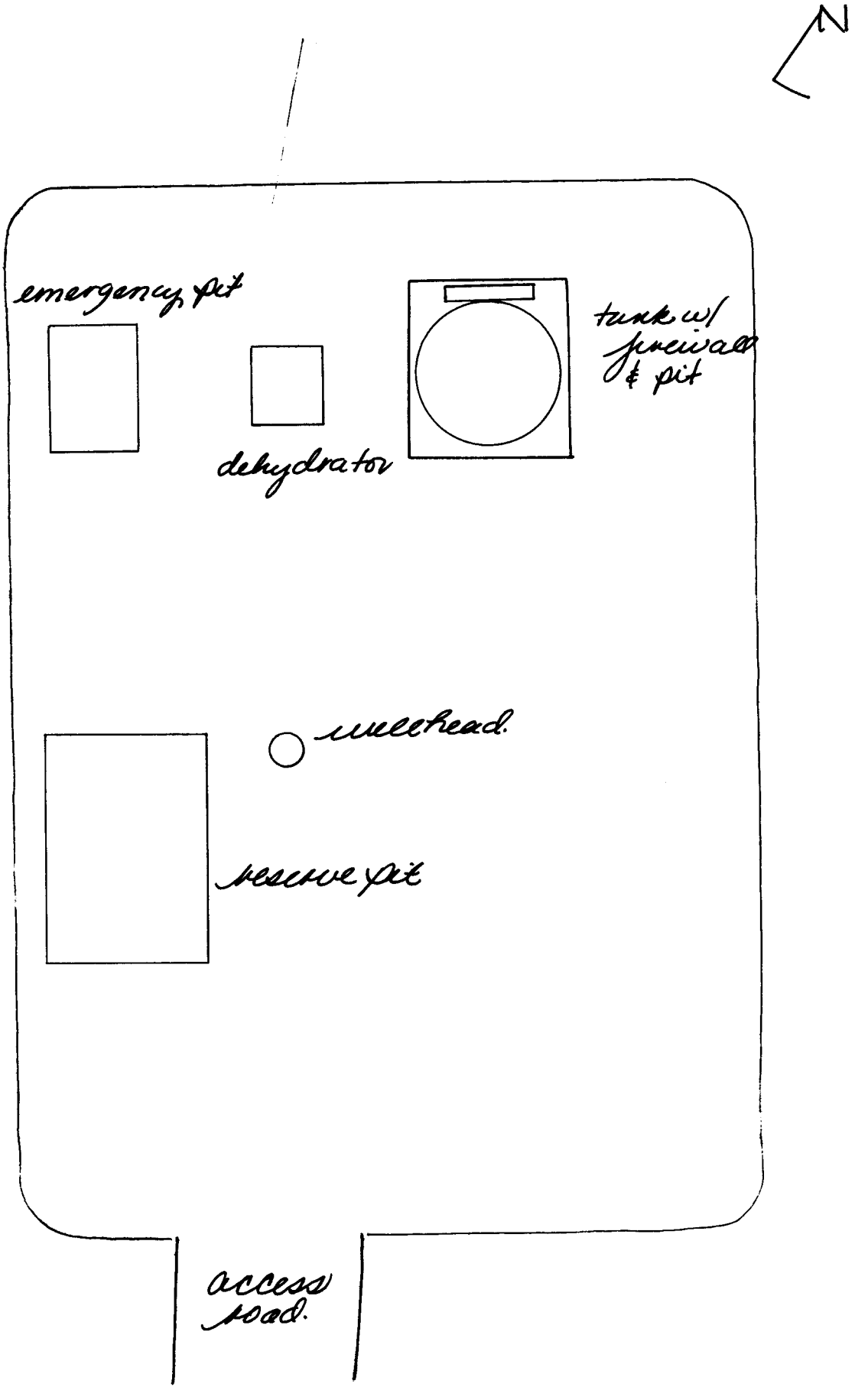
37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Green River	2686	2690	Oil and Water
Green River	2801	2805	Oil and Water
Green River	3276	3282	Oil and Water

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

Dirty Devil U. #31-15A | Sec 15, 9S, 24E | Kane Cty | 13 July 88



TAS

eps

EPS Resources Company

5655 South Yosemite
Suite 460
Englewood, CO 80111
(303) 721-7920

October 6, 1988

Connie Larsen
Utah State Tax Commission
160 East Third South
Salt Lake City, UT 84134-0550

RE: Dirty Devil Unit
Uintah County, Utah
Utah Account No. N5001

Dear Connie:

In reference to our recent conversation, I spoke with Dwain Immel of our office and he informed me that The Dirty Devil, L.P. is the operator of The Dirty Devil Unit located in Uintah County, Utah. EPS Resources Company is the Managing General Partner of The Dirty Devil, L.P. Please let your records show The Dirty Devil, L.P. as operator of the following wells with the corresponding account number N5001.

Well Name API Number	Entity	Location
Devils Playground Fed 23-17 4304730568	06136	09S 24E 17
Devils Playground 41-9 4304730339	06195	09S 24E 9
Red Wash Fed 1-18 4304730124	06200	09S 24E 18
Dirty Devil 22-27 4304731507	09585	09S 24E 27
Dirty Devil Unit 11-29 4304731617	09586	09S 24E 29
Dirty Devil Unit 31-15A 4304731726	10697	09S 24E 15
Devils Playground Fed 23-20 4304731009	10698	09S 24E 20

EPS Resources Corporation

5655 South Yosemite
Suite 460
Englewood, CO 80111
(303) 721-7920

May 18, 1989

Bureau of Land Management
Attn: Mr. Ed Forman
Vernal District Office
170 South, 500 East
Vernal, Utah 84078

5/22/89 spoke w/Mr. Neibauer at 4:10 p.m. effective date is 1-1-89 JS

RE: Dirty Devil Unit
Uintah County, Utah

Dear Mr. Forman:

This letter is written notification to change the name of the Operator of the Dirty Devil Unit from the Dirty Devil L.P. to EPS Resources Corporation.

EPS Resources Corporation is the Managing General Partner of the Dirty Devil L.P..

EPS Resources Corporation has provided a letter of credit #244 to the Bureau of Land Management.

Attached is the list of wells EPS Resources Corporation owns and operates in the Dirty Devil Unit.

If you have any questions, please do not hesitate to contact myself or Cindy Senko at (303) 721-7920.

Sincerely,

Edward Neibauer
President

CS/ntm

Enclosure

cc: State of Utah, Division of Oil, Gas & Mining
Attn: Mickey Coulthard
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

OIL AND GAS	
DRN	3- RJF
4- JRB ✓	5- GLH
DTS	6- SLS ✓
1-TAS	[redacted]
2-LCR	
7- MICROFILM ✓	
8- FILE	

DIRTY DEVIL UNIT
UINTAH COUNTY, UTAH

Well Number	Lease No.	Section ¼ of ¼	TWP	RNG
23-17	U-31266	NESW Sec. 17	9S	24E
23-20	U-31266	NESW Sec. 20	9S	24E
41-9	U-5217	NENE Sec. 9	9S	24E
1-18	U-0145459	NWNE Sec. 18	9S	24E
22-27	SL-071725-C	SENW Sec. 27	9S	24E
11-29	ML-22161	NWNW Sec. 29	9S	24E
31-15A	ML-28042	NWNE Sec. 15	9S	24E
1-4	U-1207	NENW Sec. 4	10S	24E
1-5	U-1207	NENW Sec. 5	10S	24E
1-8	U-59150	SESW Sec. 8	9S	24E
1-9	U-59089	SWSE Sec. 9	9S	24E

DOGM 56-64-2
an equal opportunity employe

UTAH
NATURAL RESOURCES
Oil, Gas & Mining

355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Ut
84180-1203. ● (801-538-5340)

Page 1 of 1

MONTHLY OIL AND GAS PRODUCTION REPORT

Operator name and address:

eff. 1-1-89
~~DIRTY DEVIL, L.P.~~ EPS RESOURCES CORP.
5655 S.YOSEMITE, STE 460
ENGLEWOOD CO 80111
ATTN: DALE ANNE KESSLER

N2025
Utah Account No. ~~N5001~~

Report Period (Month/Year) 4 / 89

Amended Report ☐

Well Name API Number Entity Location	Producing Zone	Days Oper	Production Volume Oil (BBL)	Gas (MSCF)	Water (BBL)
DEVILS PLAYGROUND FED 23-17 4304730568 06136 09S 24E 17	MVRD				
DEVILS PLAYGRND 41-9 4304730339 06195 09S 24E 9	WSTC				
RED WASH FED 1-18 4304730124 06200 09S 24E 18	WSTC				
DIRTY DEVIL 22-27 4304731507 09585 09S 24E 27	WSTC				
DIRTY DEVIL UNIT #11-29 4304731617 09586 09S 24E 29	MVRD				
DIRTY DEVIL UNIT #31-15A 4304731726 10697 09S 24E 15	GRRV				
DEVILS PLAYGROUND FED 23-20 4304731009 10698 09S 24E 20	MVRD				
TOTAL					

Comments (attach separate sheet if necessary) * 5-26-89 Entities are all single entity wells (ok!) jlf

I have reviewed this report and certify the information to be accurate and complete. Date

Authorized signature

Telephone

PLEASE COMPLETE FORMS IN BLACK INK

3160
(U-922)

AUG 1989
RECEIVED

August 7, 1989

CDS Resources Corp.
3565 South Yosemite, Suite 460
Englewood, Colorado 80111

Gentlemen:

Pursuant to your request of July 18, 1989, we have reviewed our paying well determinations of January 12, 1989 (copy enclosed).

As a result of this review we have determined that under existing conditions the following wells are not capable of producing unitized substances in paying quantities as defined by Section 11 of the Dirty Devil Unit Agreement.

Entity #	Well no.	Location	Lease no.	
6136	22-17	NE¼SW¼ sec. 17, T. 9 S., R. 24 E.	U-31956	43-047-30568
9586	11-29	NW¼NW¼ sec. 29, T. 9 S., R. 24 E.	State ML-22151	43-047-31617
10697	31-15A	NW¼NE¼ sec. 15, T. 9 S., R. 24 E.	State ML-28042	43-047-31726
10698	23-20	NE¼SW¼ sec. 20, T. 9 S., R. 24 E.	U-31956	43-047-31009

Therefore, our paying well determination dated January 12, 1989, and the approval of the Initial Wasatch Reservoir participating Area "D", dated May 2, 1989 (copy enclosed), are hereby rescinded. Production from these wells shall be handled and reported on a lease basis. Please advise all interested parties with evidence of this determination.

Sincerely,

(Orig. Sgd.) R. A. Henricks

Robert A. Henricks
Chief, Branch of Fluid Minerals

1 Enclosure
Determination 1/12/89

bcc: DM Vernal
Dirty Devil Unit File
U-942 w/encl
RMP-Denver w/encl
Utah State Land Board w/encl
Agr Sec. Chron
Fluid Chron

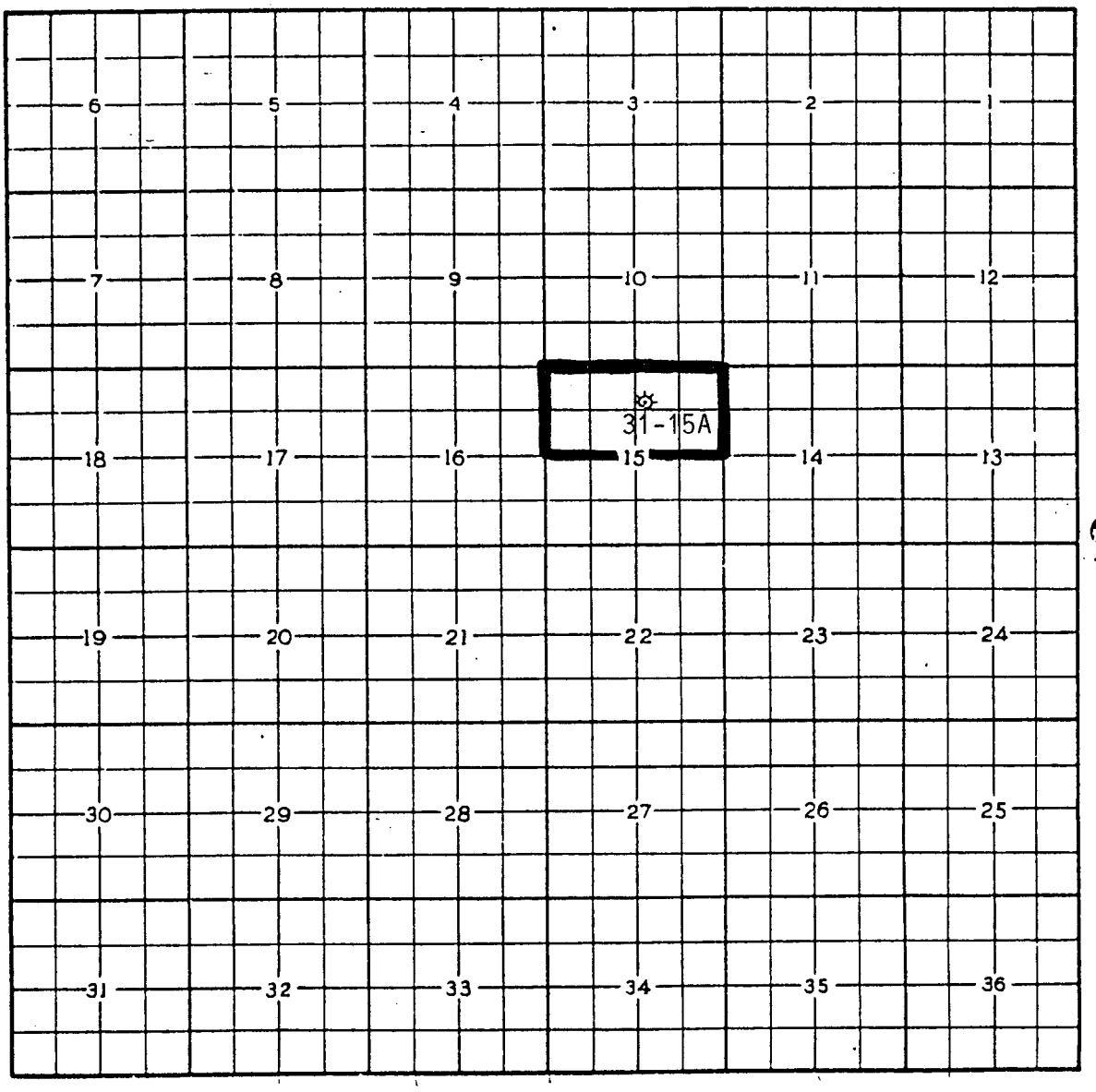
* No Entity changes necessary.
9-26-89
JCR

DEPT. OF THE INTERIOR
RECEIVED
AUG 9 1989
BUR OF LAND MANAGEMENT
VERNAL, UTAH

P.A. Rescinded 8-7-89

DIRTY DEVIL UNIT

Wasatch-Mesaverde PA "D"



9S

24E

Allocation

Federal	0.00%
State	100.00%
Fee	0.00%

Form OGC-1b

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

5. LEASE DESIGNATION AND SERIAL NO.: ML-28042

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER

7. UNIT AGREEMENT NAME: Dirty Devil

2. NAME OF OPERATOR: EPS Resources Corporation

8. FARM OR LEASE NAME: State

3. ADDRESS OF OPERATOR: 5655 S. Yosemite, Suite 460, Englewood, Colorado 80111

9. WELL NO.: 31-15A

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface

616' FNL 1829' FEL NW/4 NE/4
Sec. 15 T9S R24E SLM

10. FIELD AND POOL, OR WILDCAT: Bonanza

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 15 T9S R24E

14. PERMIT NO.: 43-047-31726

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 5284' GR

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			
(Other)			X	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Operator plans to construct a water disposal pit approximately 40' x 80' in dimension. The pit will be lined and monitored at all times.

JUN 04 1990

DIVISION OF OIL, GAS & MINING

* APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 6-7-90
BY: [illegible]

* This is a temporary approval for construction and use of the pit until the planned unit disposal well is in operation or until further notice from the Division.

OIL AND GAS	
DRN	RJF
JRB	1- GLH
DTS	SLS
2-BGH	
3.- MICROFILM	
4-FILE	

18. I hereby certify that the foregoing is true and correct

SIGNED Edward Neibauer TITLE President DATE 5/31/90

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Valley Operating, Inc.

Office: (303) 355-3242 Fax: (303) 377-9798

745 Gilpin Street
Denver, Colorado 80218-3633

August 8, 1991

Division of Oil, Gas & Mining
ATTN: Lisha Romero
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

RE: Approved Sundry Notices for wells
in Uintah County, Utah

Dear Ms. Romero:

As per the regulations please find enclosed the approved Sundry Notices from the Bureau of Land Management for the following wells in which Valley Operating, Inc. has been approved as the new Operator in Uintah County, Utah:

11-29	31-15-A
28-1	1-18
13-1	
22-27	
32-2	
1-9	
41-9	
23-17	
23-20	

Please inform me if we are missing any Sundry Notices that you are aware of.

Sincerely yours,

Cindy Senko
Contract Landman

cs

Enclosures

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: ML-28042

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: Dirty Devil Unit

8. FARM OR LEASE NAME:

9. WELL NO.: 31-15-A

10. FIELD AND POOL, OR WILDCAT:

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 15, T9S-R24E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR: Valley Operating, Inc.

3. ADDRESS OF OPERATOR: 745 Gilpin Street, Denver, Colorado 80218-3633

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: T9S-R24E, Sec. 15: NWNE

14. PERMIT NO.: 43-047-31726

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF ☐	PCLL OR ALTER CASING ☐	WATER SHUT-OFF ☐	REPAIRING WELL ☐
FRACTURE TREAT ☐	MULTIPLE COMPLETE ☐	FRACTURE TREATMENT ☐	ALTERING CASING ☐
SHOOT OR ACIDIZE ☐	ABANDON* ☐	SHOOTING OR ACIDIZING ☐	ABANDONMENT* ☐
REPAIR WELL ☐	CHANGE PLANS ☐	(Other)	
(Other) Change of Operator ☒		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Valley Operating, Inc., is submitting this Sundry Notice to effect the change of Operator from EPS Resources Corporation to Valley Operating, Inc.

Valley Operating, Inc., as Operator is covered under Statewide Utah Oil and Gas Bond No. UT0832. for federal leases and for the state leases a CD with United Bank of Denver ABA #102-000-076 has been established.

Effective 3/8/91.

RECEIVED
AUG 12 1991
DIVISION OF
OIL GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED E. Lee Robinson TITLE Vice-President DATE 4-8-91

(This space for Federal or State office use)

APPROVED BY ASSISTANT DISTRICT MINERALS TITLE DATE JUN 03 1991

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the [illegible] to any matter within its jurisdiction.

Speed Letter®

To Ed Bonner
State Lands

From Don Staley
Oil, Gas and Mining

Subject Operator Change

— No. 9 & 10 FOLD

MESSAGE

Date 9-3 19 91

Ed,

For your information, attached are copies of documents regarding an operator change on a state lease(s). ~~These companies have~~ Valley Operating has complied with our requirements.* Our records have been updated. Bonding should be reviewed by State Lands ASAP.

Former Operator: EPS Resources Corp (N 2025)

New Operator : VALLEY Operating Inc. (N 8270)

Well:	API:	Entity:	S-T-R:
Dirty Dev. Unit 11-29	43-047-31617	09586	29-9S-24E
Conoco State 32-2	43-047-30100	10090	32-8S-25E
Dirty Devil Unit 31-15A	43-047-31726	10697	15-9S-24E

* we have been unable to obtain documents from EPS.

— No. 9 FOLD

— No. 10 FOLD

CC: Operator File

Signed Don Staley

REPLY

Date 19

Signed

Wilson Jones Company
GRAYLINE FORM 44-912 3-PART
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RECIPIENT—RETAIN WHITE COPY, RETURN PINK COPY.

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

Routing:
1- LCR
2- ~~DTS~~ DTS
3- VLC
4- RJF
5- RWM
6- LCR

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

☒ Change of Operator (well sold)
☐ Designation of Operator
☐ Designation of Agent
☐ Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 3/8/91

TO (new operator) VALLEY OPERATING, INC.
(address) 745 GILPIN STREET
DENVER, CO 80218-3633
CINDY SENKO/LANDMAN
phone (303) 355-3242
account no. N 8270

FROM (former operator) EPS RESOURCES CORP.
(address) 5655 S. YOSEMITE, #460
ENGLEWOOD, CO 80111
DALE ANN KESLER
phone (303)721-7920
account no. N2025

Well(s) (attach additional page if needed):

Name: DIRTY DEVIL U #11-29/MV	API: 43-047-31617	Entity: 9586	Sec 29	Twp 9S	Rng 24E	Lease Type:	ML-2216
Name: COYOTE BASIN 28-1/GRRV	API: 43-047-30098	Entity: 10095	Sec 28	Twp 8S	Rng 25E	Lease Type:	U-01625
Name: FEDERAL #13-1/UNTA	API: 43-047-31811	Entity: 10796	Sec 13	Twp 8S	Rng 23E	Lease Type:	U-61396
Name: DIRTY DEVIL U 22-27/WSTC	API: 43-047-31507	Entity: 9585	Sec 27	Twp 9S	Rng 24E	Lease Type:	SL71725
Name: CONOCO ST 32-2/DGCRK	API: 43-047-30100	Entity: 10096	Sec 32	Twp 8S	Rng 25E	Lease Type:	ML-11124
Name: FEDERAL 1-9/DRL	API: 43-047-31852	Entity: 11199	Sec 9	Twp 9S	Rng 24E	Lease Type:	U-5217
Name: DEVILS PLAYGRND 41-9/WS	API: 43-047-30339	Entity: 6195	Sec 9	Twp 9S	Rng 24E	Lease Type:	U-5217

OPERATOR CHANGE DOCUMENTATION

N/A 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Unable to get documentation)

Lcr 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Rec'd 8-12-91)

Lcr 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) _____ If yes, show company file number: #150678.

Lcr 4. (For Indian and Federal Wells ONLY) The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.

Lcr 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (8-21-91)

Lcr 6. Cardex file has been updated for each well listed above. (8-21-91)

Lcr 7. Well file labels have been updated for each well listed above.

Lcr 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission.

Lcr 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

- OVER -

ERATOR CHANGE WORKSHEET (CONTINUED) Initi each item when completed. Write N/A item is not applicable.

TITY REVIEW

1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ____ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).

2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

OND VERIFICATION (Fee wells only)

1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.

2. A copy of this form has been placed in the new and former operators' bond files.

3. The former operator has requested a release of liability from their bond (yes/no) ___. Today's date _____ 19___. If yes, division response was made by letter dated _____ 19___.

EASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

1. (Rule R615-2-10) The former operator/lessee of any **fee lease** well listed above has been notified by letter dated _____ 19___, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.

9-3-91
2. Copies of documents have been sent to State Lands for changes involving State leases.
to - Ed Bonner

ILMING

1. All attachments to this form have been microfilmed. Date: Sept 6 1991.

ILING

1. Copies of all attachments to this form have been filed in each well file.

2. The original of this form and the original attachments have been filed in the Operator Change file.

OMMENTS

910815 Bfm/Vernal Approved, effective dates 6-3-91 and 6-12-91. (See individual well sundry)

Routing:

1- LCR	✓
2- DTS	
3- VLC	
4- RJF	✓
5- RWM	✓
6- LCR	

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X Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator ☐ Operator Name Change Only

he operator of the well(s) listed below has changed (EFFECTIVE DATE: 3-8-91

TO (new operator)	VALLEY OPERATING, INC.	FROM (former operator)	EPS RESOURCES CORP.
(address)	745 GILPIN STREET	(address)	5655 S. YOSEMITE, #460
	DENVER, CO 80218-3633		ENGLEWOOD, CO 80111
	CINDY SENKO/LANDMAN		DALE ANN KESLER
	phone (303) 355-3242		phone (303) 721-7920
	account no. N8270		account no. N 2025

ell(s) (attach additional page if needed):

Name: DEVILS PLAYGRND 23-17/MV	API: 43-047-30568	Entity: 6136	Sec 17	Twp 9S	Rng 24E	Lease Type: U-31266
Name: DEVILS PLAYGRND 23-20/MV	API: 43-047-31009	Entity: 10698	Sec 20	Twp 9S	Rng 24E	Lease Type: U-31266
Name: DIRTY DEVIL U 31-15A/GRRV	API: 43-047-31726	Entity: 10697	Sec 15	Twp 9S	Rng 24E	Lease Type: ML-28042
Name: RED WASH FED 1-18/WSTC	API: 43-047-30124	Entity: 6200	Sec 18	Twp 9S	Rng 24E	Lease Type: U-014545
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:

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Lcr 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

OR CHANGE WORKSHEET (CONTINUED) Initial each item when completed. Write N/A if item is not applicable.

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3. The former operator has requested a release of liability from their bond (yes/no) ___. Today's date _____ 19___. If yes, division response was made by letter dated _____ 19___.

SE INTEREST OWNER NOTIFICATION RESPONSIBILITY

1. (Rule R615-2-10) The former operator/lessee of any fee lease well listed above has been notified by letter dated _____ 19___, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.

2. Copies of documents have been sent to State Lands for changes involving State leases.

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1. All attachments to this form have been microfilmed. Date: Sept 6 1991.

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1. Copies of all attachments to this form have been filed in each well file.

2. The original of this form and the original attachments have been filed in the Operator Change file.

MENTS

910815 Btm/Vernal Approved, effective dates 6-3-91 and 6-12-91. (See individual well sundry)

1/34-35

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

RECEIVED
MAY 23 1995
DIV OF OIL, GAS & MINING

6. Lease Designation and Serial Number: ML-28042

7. Indian Allottee or Tribe Name:

8. Unit or Communitization Agreement: Dirty Devil

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT -- for such proposals

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other (specify) _

9. Well Name and Number: Dirty Devil 31-15A

2. Name of Operator: Valley Operating Co.

10. API Well Number: 43-047-31726

3. Address of Operator: 745 Gilpin St., Denver CO 80218-3633

4. Telephone Number: 303/355-3242

11. Field and Pool, or Wildcat: Bonanza

5. Location of Well
Footage : 616' FNL & 1829' FEL
QQ, Sec, T., R., M. : NWNE Sec. 15-T9S-R24E
County : Uintah
State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- ☐ Abandonment
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Multiple Completion
- ☐ Other _____
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☒ Recompletion
- ☒ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Approximate Date Work Will Start: 05/24/95

SUBSEQUENT REPORT
(Submit Original Form Only)

- ☐ Abandonment *
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Other _____
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Date of Work Completion: _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accomplanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

WSTC

We propose to perforate the Upper Mesaverde at 5514'-5524'. Acidizing and fracturing will be used to stimulate the formation, followed by flowing the well to test for hydrocarbons.

14. I hereby certify that the foregoing is true and correct

Name & Signature: [signature] Agent for Valley Operating Co.

Title: V. P. - Operations Date: 5/19/95

(State Use Only)

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT -- for such proposals

6. Lease Designation and Serial Number: ML-28042
7. Indian Allottee or Tribe Name:
8. Unit or Communitization Agreement: Dirty Devil
9. Well Name and Number: Dirty Devil 31-15A
10. API Well Number: 43-047-31726
11. Field and Pool, or Wildcat: Bonanza

1. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other (specify)
2. Name of Operator: Valley Operating Co.
3. Address of Operator: 745 Gilpin St., Denver CO 80218-3633
4. Telephone Number: 303/355-3242
5. Location of Well
   Footage : 616' FNL & 1829' FEL
   QQ, Sec, T., R., M. : NWNE Sec. 15-T9S-R24E
   County : Uintah
   State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- ☐ Abandonment
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Multiple Completion
- ☐ Other
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☒ Recompletion
- ☒ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Approximate Date Work Will Start 06/07/95

SUBSEQUENT REPORT
(Submit Original Form Only)

- ☐ Abandonment *
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Other
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Date of Work Completion

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

We propose to set a retrievable bridge plug at 4580' and perforate the Wasatch from 4308'-4320'. Acidizing and fracturing will be used to stimulate the formation, followed by flowing the well to test for hydrocarbons.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY

14. I hereby certify that the foregoing is true and correct

Name & Signature Waldo Ackerman   Agent for Valley Operating Co.   Title Petro. Engineer   Date ***********

(State Use Only)

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number: ML-28042

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT — for such proposals

7. Indian Allottee or Tribe Name:

8. Unit or Communitization Agreement: Dirty Devil

1. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other (specify) _

9. Well Name and Number: Dirty Devil 31-15A

2. Name of Operator: Valley Operating Co.

10. API Well Number: 43-047-31726

3. Address of Operator: 745 Gilpin St., Denver CO 80218-3633

4. Telephone Number: 303/355-3242

11. Field and Pool, or Wildcat: Bonanza

5. Location of Well
Footage : 616' FNL & 1829' FEL
QQ, Sec., T., R., M. : NWNE Sec. 15-T9S-R24E
County : Uintah
State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other _____	
☒ Other Commingle			

Approximate Date Work Will Start _____

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accomplanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

We propose to remove the bridge plug at 4580' and commingle the Wasatch (4308'-4320') with the Mesaverde (5514'-5524').

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

14. I hereby certify that the foregoing is true and correct

Name & Signature Waldo Ackerman

Title Agent for Valley Operating Co. Petro. Engineer Date 6/19/95

(State Use Only)

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number: ML-28042

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT – for such proposals

7. Indian Allottee or Tribe Name:

8. Unit or Communitization Agreement: Dirty Devil

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other (specify) _

9. Well Name and Number: Dirty Devil 31-15A

2. Name of Operator: Valley Operating Co.

10. API Well Number: 43-047-31726

3. Address of Operator: 745 Gilpin St., Denver CO 80218-3633

4. Telephone Number: 303/355-3242

11. Field and Pool, or Wildcat: Bonanza

5. Location of Well
Footage : 616' FNL & 1829' FEL
QQ, Sec, T., R., M. : NWNE Sec. 15-T9S-R24E
County : Uintah
State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☒ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☒ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other _____	
☐ Other _____			

Approximate Date Work Will Start: 06/07/95

Date of Work Completion: _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accomplanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

We propose to set a retrievable bridge plug at 4580' and perforate the Wasatch from 4308'-4320'. Acidizing and fracturing will be used to stimulate the formation, followed by flowing the well to test for hydrocarbons.

RECEIVED
JUN 26 1995
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct

Name & Signature: Waldo Akerman

Agent for Valley Operating Co.

Title: Petro. Engineer

Date: **********

(State Use Only)

(8/90)

See Instructions on Reverse Side

Form 9

STA OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT -- for such proposals

6. Lease Designation and Serial Number: ML-28042
7. Indian Allottee or Tribe Name:
8. Unit or Communitization Agreement: Dirty Devil
9. Well Name and Number: Dirty Devil 31-15A
10. API Well Number: 43-047-31726
11. Field and Pool, or Wildcat: Bonanza

1. Type of Well: [ ] Oil Well [ ] Gas Well [ ] Other (specify)
2. Name of Operator: Valley Operating Co.
3. Address of Operator: 745 Gilpin St., Denver CO 80218-3633
4. Telephone Number: 303/355-3242
5. Location of Well
Footage : 616' FNL & 1829' FEL — County : Uintah
QQ, Sec, T., R., M. : NWNE Sec. 15-T9S-R24E — State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- [ ] Abandonment
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Treat
- [ ] Multiple Completion
- [X] Other Commingle
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Recompletion
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off

Approximate Date Work Will Start ____________

SUBSEQUENT REPORT
(Submit Original Form Only)

- [ ] Abandonment *
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Treat
- [ ] Other ____________
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off

Date of Work Completion ____________

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

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RECEIVED
JUN 26 1995
DIV. OF OIL, GAS & MINING

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Name & Signature [signature] Title Agent for Valley Operating Co. Petro. Engineer Date 6/19/95

(State Use Only)

(8/90)

See Instructions on Reverse Side

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

RECEIVED
JUL 17 1995
DIV. OF OIL, GAS & MINING

	6. Lease Designation and Serial Number: ML-28042
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT – for such proposals	7. Indian Allottee or Tribe Name
	8. Unit or Communitization Agreement: Dirty Devil
1. Type of Well [ ] Oil Well [X] Gas Well [ ] Other (specify) _	9. Well Name and Number: Dirty Devil 31-15A
2. Name of Operator: Valley Operating Co.	10. API Well Number: 43-047-31726
3. Address of Operator: 745 Gilpin St., Denver CO 80218-3633	4. Telephone Number: 303/355-3242
	11. Field and Pool, or Wildcat: Bonanza
5. Location of Well Footage : 616' FNL & 1829' FEL QQ, Sec, T., R., M. : NWNE Sec. 15-T9S-R24E	County : Uintah State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
[ ] Abandonment	[ ] New Construction	[ ] Abandonment *	[ ] New Construction
[ ] Casing Repair	[ ] Pull or Alter Casing	[ ] Casing Repair	[ ] Pull or Alter Casing
[ ] Change of Plans	[ ] Recompletion	[ ] Change of Plans	[ ] Shoot or Acidize
[ ] Conversion to Injection	[ ] Shoot or Acidize	[ ] Conversion to Injection	[ ] Vent or Flare
[ ] Fracture Treat	[ ] Vent or Flare	[ ] Fracture Treat	[ ] Water Shut-Off
[ ] Multiple Completion	[ ] Water Shut-Off	[X] Other Recompletion & Commingle	
[ ] Other _____			

Approximate Date Work Will Start _____

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

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13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

5/20/95: Tag PBTD @ 5918'.
5/27/95: Squeezed Green River perforations at 2801'-2805' with 50 sx. Class G cement.
5/30/95: Drill out cement and test casing. Perforate Mesaverde interval from 5514'-5524'.
5/31/95: Frac interval with 49,000# 20/40m sand and 541 bbl. fluid.
6/07/95: Set retrievable bridge plug at 4580'. Perforate Wasatch interval from 4308'-4320'.
6/08/95: Frac interval with 103,000# 20/40m sand and 785 bbl. fluid.
6/27/95: Retrieve bridge plug at 4580' and commingle Wasatch and Mesaverde intervals.

14. I hereby certify that the foregoing is true and correct

Name & Signature Walter Ackerman Title Agent for Valley Operating Co. Retro. Engineer Date 6/19/95

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DIV. OF OIL, GAS & MINING

(State Use Only)

(8/90) See Instructions on Reverse Side

FORM 8

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NO.: ML-28042

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WORK: OIL WELL [ ] GAS WELL [X] DRY [ ] Other

7. UNIT AGREEMENT NAME: Dirty Devil

1b. TYPE OF WELL: NEW WELL [ ] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR [X] Other

8. FARM OR LEASE NAME: Dirty Devil #31-15A

2. NAME OF OPERATOR: Valley Operating Co.

9. API WELL NO.: 43-047-31726

3. ADDRESS AND TELEPHONE NO.: 745 Gilpin Street, Denver CO 80218-3633

10. FIELD AND POOL OR WILDCAT: Bonanza

4. LOCATION OF WELL (Report locations clearly and in accordance with any State requirements*)
At Surface: 616' FNL & 1829' FEL Sec. 15
At top prod. Interval reported below: Same
At total depth: Same

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DIV. OF OIL, GAS & MINING

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: NWNE 15-T9S-R24E

14. API NO.	DATE ISSUED	12. COUNTY	13. STATE
43-047-31726	6/86	Uintah	UT

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.) or (Plug & Abandon)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)	19. ELEV. CASINGHEAD
8/18/86	9/10/86	06/14/95	5274' GR	5284'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
7496' MD TVD	5925' MD TVD	2	——>	0'-7496'	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)
5514'-5524' (Upper Mesaverde Sand)
4308'-4320' (Upper Wasatch Sand)

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: No new logs run

27. WAS WELL CORED YES [ ] NO [ ] (Submit analysis)
DRILL STEM TST YES [ ] NO [ ] (See reverse side)

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9 5/8"	36#	250'	12 1/4"	200 sx. Class G cement	
4 1/2"	17#	7496'	7 7/8"	1379 sx. Class G cement	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	4179'	

31. PERFORMATION RECORD (Interval, size and number)

INTERVAL	SIZE	NUMBER
5514'-5524'	.45"	21
4308'-4320'	.45"	25

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
2616-3282'	Cmt. squeeze w/50 sx. Class G
4308-4320'	103,000# 20/40m Sand & 785 bbl. fluid
5514-5524'	49,000# 20/40m Sand & 541 bbl. fluid

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)	WELL STATUS (Producing or shut-in)
Shut in		Shut in, WOPL

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL--BBLS.	GAS--MCF.	WATER--BBL.	GAS-OIL RATIO
6/14/95	24	18/64"	——>	-0-	200	332	NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL--BBL.	GAS--MCF.	WATER--BBL.	OIL GRAVITY-API (CORR.)
540 ps		——>	-0-	200	33	NA

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): Vented, pending sales line

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS: None

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

Agent for Valley Operating Co.

SIGNED Waldo Ackerman TITLE Petroleum Engineer DATE 07/21/95

See Spaces for Additional Data on Reverse Side

INSTRUCTIONS

This form should be completed in compliance with the Utah Oil and Gas Conservation General Rules. If not filed prior to this time, all logs, tests, and directional surveys as required by Utah Rules should be attached and submitted with this report.

ITEM 18: Indicate which elevation is used as reference for depth measurements given in other spaces on this form and on any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

ITEM 29: "Sacks of Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

ITEM 33: Submit a separate completion report on this form for each interval to be separately produced (see instruction for items 22 and 24 above).

Dirty Devil #31-15A

37. SUMMARY OF POROUS ZONES:
Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Mesaverde Sand	5500'	5520'	Gas & water
Wasatch Sand	4298'	4330'	Gas & water

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Wasatch	3400'	
Mesaverde	5055'	

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number: ML-28042

7. Indian Allottee or Tribe Name:

8. Unit or Communitization Agreement: Dirty Devil

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT – for such proposals

1. Type of Well
[ ] Oil Well [X] Gas Well [ ] Other (specify) _

9. Well Name and Number: Dirty Devil 31-15A

2. Name of Operator: Gerrity Oil & Gas Corporation

10. API Well Number: 43-047-31726

3. Address of Operator: 4100 E. Mississippi Ave., 1200, Denver CO 80222

4. Telephone Number: 303/757-1110

11. Field and Pool, or Wildcat: Bonanza

5. Location of Well
Footage : 616' FNL & 1829' FEL
QQ, Sec, T., R., M. : NWNE Sec. 15-T9S-R24E
County : Uintah
State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
[ ] Abandonment	[ ] New Construction	[ ] Abandonment *	[ ] New Construction
[ ] Casing Repair	[ ] Pull or Alter Casing	[ ] Casing Repair	[ ] Pull or Alter Casing
[ ] Change of Plans	[ ] Recompletion	[ ] Change of Plans	[ ] Shoot or Acidize
[ ] Conversion to Injection	[ ] Shoot or Acidize	[ ] Conversion to Injection	[ ] Vent or Flare
[ ] Fracture Treat	[ ] Vent or Flare	[ ] Fracture Treat	[ ] Water Shut-Off
[ ] Multiple Completion	[ ] Water Shut-Off	[X] Other Water Disposal	
[ ] _____			

Approximate Date Work Will Start _____

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accomplanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

We propose that the water produced from the Dirty Devil 31-15A be disposed of at Gerrity's Federal #14-10 disposal well.

RECEIVED
OCT 2 1995
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct

Name & Signature Waldo Ackerman Title Petro. Engineer Date 09/27/95

(State Use Only)

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

(8/90) See Instructions on Reverse Side

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number	ML-28042
7. Indian Allottee or Tribe Name	
8. Unit or Communitization Agreement	Dirty Devil
9. Well Name and Number	Dirty Devil 31-15A
10. API Well Number	43-047-31726
11. Field and Pool, or Wildcat	Bonanza

SUNDRY NOTICES AND REPORTS ON WELLS

FEB - 5 1996

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT – for such proposals

1. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other (specify) _

2. Name of Operator: Gerrity Oil & Gas Corporation

3. Address of Operator: 4100 E. Mississippi Ave., #1200, Denver CO 80222

4. Telephone Number: 303/757-1110

5. Location of Well
Footage : 616' FNL & 1829' FEL
QQ, Sec, T., R., M. : NWNE Sec. 15-T9S-R24E
County : Uintah
State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
[ ] Abandonment	[ ] New Construction	[ ] Abandonment *	[ ] New Construction
[ ] Casing Repair	[ ] Pull or Alter Casing	[ ] Casing Repair	[ ] Pull or Alter Casing
[ ] Change of Plans	[ ] Recompletion	[ ] Change of Plans	[ ] Shoot or Acidize
[ ] Conversion to Injection	[ ] Shoot or Acidize	[ ] Conversion to Injection	[ ] Vent or Flare
[ ] Fracture Treat	[ ] Vent or Flare	[ ] Fracture Treat	[ ] Water Shut-Off
[ ] Multiple Completion	[ ] Water Shut-Off	[X] Other Change of Operator	
[ ] Other _____			

Approximate Date Work Will Start _____

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accomplanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please be advised that Gerrity Oil & Gas Corporation is considered to be the operator of the Dirty Devil #31-15A, NWNE Section 15, Township 9 South, Range 24 East, Uintah County, Utah; and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by United States Fire Insurance Company.

14. I hereby certify that the foregoing is true and correct
Name & Signature D. Allt Robinson
Valley Operating Inc.
Title Vice President Date 07/24/95

14. I hereby certify that the foregoing is true and correct
Name & Signature Terry L. Kay
Gerrity Oil & Gas Corporation
Title Vice President Date 07/24/95

(State Use Only)

JAN 30 1996

ACCEPTED

(8/90)

See Instructions on Reverse Side

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number: ML-28042

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT — for such proposals

7. Indian Allottee or Tribe Name:

8. Unit or Communitization Agreement: Dirty Devil

1. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other (specify) _

9. Well Name and Number: Dirty Devil 31-15A

2. Name of Operator: Lone Mountain Production Co.

10. API Well Number: 43-047-31726

3. Address of Operator: P. O. Box 3394 Billings, MT 59103

4. Telephone Number: 406/245-5077

11. Field and Pool, or Wildcat: Bonanza

5. Location of Well
Footage : 616' FNL & 1829' FEL
QQ, Sec, T., R., M. : NWNE Sec. 15-T9S-R24E
County : Uintah
State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
[ ] Abandonment	[ ] New Construction	[ ] Abandonment *	[ ] New Construction
[ ] Casing Repair	[ ] Pull or Alter Casing	[ ] Casing Repair	[ ] Pull or Alter Casing
[ ] Change of Plans	[ ] Recompletion	[ ] Change of Plans	[ ] Shoot or Acidize
[ ] Conversion to Injection	[ ] Shoot or Acidize	[ ] Conversion to Injection	[ ] Vent or Flare
[ ] Fracture Treat	[ ] Vent or Flare	[ ] Fracture Treat	[ ] Water Shut-Off
[ ] Multiple Completion	[ ] Water Shut-Off	[X] Other Change of Operator	
[ ] Other _____			

Approximate Date Work Will Start _____

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accomplanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please be advised that Lone Mountain Production Co. is considered to be the operator of the Dirty Devil #31-15A, NWNE Section 15, Township 9 South, Range 24 East, Uintah County, Utah; and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands.

Bond coverage is provided Lone Mountain Production Co.'s statewide oil and gas bond. Field operatons will be handled by Lone Mountain's Grand Junction, CO office.

14. I hereby certify that the foregoing is true and correct
Name & Signature James E. Routson — Lone Mountain Production Co.
Title President — Date 7/22/96

14. I hereby certify that the foregoing is true and correct
Name & Signature Terry L. Ruby — Gerrity Oil & Gas Corporation
Title Vice President — Date 7/22/96

(State Use Only)

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JUL 26 1996
DIV OF OIL, GAS & MINING

(8/90) See Instructions on Reverse Side

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-359-3940 (Fax)
801-538-5319 (TDD)

UTAH DIVISION OF OIL, GAS AND MINING
FACSIMILE COVER SHEET

DATE: 5-6-97

FAX # 355-0922

ATTN: ED BONNER

COMPANY: TRUST LANDS

FROM: LISHA CORDOVA

DEPARTMENT: OIL & GAS

NUMBER OF PAGES BEING SENT (INCLUDING THIS ONE): 3

If you do not receive all of the pages, or if they are illegible, please call (801) 538-

We are sending from a Sharp facsimile machine. Our telecopier number is (801) 359-3940.

MESSAGES:

ML-22161/11-29 SEC. 29, T. 9S, R. 24E (43-047-31617)

ML-11124/32-2 SEC. 32, T. 8S, R. 25E (43-047-30100)

ML-28042/31-15A SEC. 15, T. 9S, R. 24E (43-047-31726)

*BONDING

LONE MOUNTAIN PRODUCTION COMPANY

Mailing Address:
P.O. Box 3394
Billings, MT 59103-3394

(406) 245-5077
FAX 248-6321

Shipping Address:
100 North 27th Street
Suite 650
Billings, MT 59101

May 21, 1997

Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, Utah 84114-5801

RE: CHANGE OF OPERATOR SUNDRY NOTICES
UINTAH COUNTY, UTAH

Gentlemen:

Enclosed in duplicate are Sundry Notices for three wells on State lands for which Lone Mountain Production Company has assumed operations effective March 3, 1997 with the termination of the Dirty Devil Unit.

Please contact Joe Dyk in our Grand Junction office in regard to field operations. Day to day operations will be handled by Dick White, who is based in Rangely, Colorado. He can be reached at (970) 675-2418 (home) or (801) 790-5418 (cell phone).

If further information is needed please advise.

Sincerely,

LONE MOUNTAIN PRODUCTION COMPANY

James G. Routson
President

Enclosures

cc: Joe Dyk

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION & SERIAL NO.: ML-28042

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Lone Mountain Production Company

8. FARM OR LEASE NAME: Dirty Devil

3. ADDRESS OF OPERATOR: P. O. Box 3394, Billings, Montana 59103 (406) 245-5077

9. WELL NO.: State No. 31-15A

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface: 616' FNL, 1829' FEL Section 15: T9S-R24E
At proposed prod. zone: Same

10. FIELD AND POOL, OR WILDCAT: Bonanza

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: NWNE Sec. 15-T9S-R24E

14. API NO.: 43-047-31726

15. ELEVATIONS (Show whether DF, RT, GR, etc.):

12. COUNTY: Uintah

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) Change of Operator			X
(Other)							

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

APPROX. DATE WORK WILL START ______

DATE OF COMPLETION ______

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

* Must be accompanied by a cement verification report.

Lone Mountain Production Company assumed operations of the above referenced well effective March 3, 1997 with the termination of the Dirty Devil Unit.

Bond coverage is provided by Lone Mountain's Statewide Oil & Gas BLM Bond #UT0719.

Field Operations will be handled by our Grand Junction office.

RECEIVED
MAY 23 1997
DIV. OF OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED [signature] TITLE President DATE May 21, 1997

(This space for Federal or State office use)

APPROVED BY ______ TITLE ______ DATE ______
CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

(3/89)

DOGM SPEED LETTER

To: Ed Bonner
School & Institutional Trust
Lands Administration

From: Don Staley
Division of Oil, Gas & Mining

Subject: Operator Change

MESSAGE Date 6/13 19 97

Ed,

For your information, attached are copies of documents regarding an operator change on a state lease(s)

These companies have complied with our requirments. Our records have been updated. Bonding should be reviewed by your agency ASAP.

Former Operator: Gerrity Oil and Gas Corp (N6355)

New Operator: Lone Mountain Production Co (N7210)

Well(s):	API:	Entity:	S-T-R:	Lease:
Dirty Devil U 11-29	43-047-31617	09586	29-9S-24E	ML22161
Conoco State 32-2	43-047-30100	10096	32-8S-25E	ML11124
Dirty Devil 31-15A	43-047-31726	10697	15-9S-24E	ML28042

cc: Operator File

Signed Don Staley

REPLY Date _____ 19 ____

Signed _____

FORMS\SPEEDLTR

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

Routing:	
1-LEC	6-LEC
2-GLH	7-KAS
3-DTS DTS	8-SI
4-VLD	9-FILE
5-JRB	

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

XXX Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator ☐ Operator Name Change Only

The operator of the well(s) listed below has changed, **effective:** 3-3-97

TO: (new operator)	LONE MTN PRODUCTION CO	**FROM:** (old operator)	GERRITY OIL & GAS CORP.
(address)	PO BOX 3394	(address)	1625 BROADWAY STE 2000
	BILLINGS MT 59103-3394		DENVER CO 80202-4720
	JAMES ROUTSON		JENNIFER CARTER
	Phone: (406)245-5077		Phone: (303)389-3600
	Account no. N7210		Account no. N6355

WELL(S) attach additional page if needed:

Name: DIRTY DEVIL U 11-29	API: 43-047-31617	Entity: 9586	S 29	T 9S	R 24E	Lease: ML22161
Name: CONOCO ST 32-2	API: 43-047-30100	Entity: 10096	S 32	T 8S	R 25E	Lease: ML11124
→ Name: DIRTY DEVIL 31-15A	API: 43-047-31726	Entity: 10697	S 15	T 9S	R 24E	Lease: ML28042
Name:	API:	Entity:	S	T	R	Lease:
Name:	API:	Entity:	S	T	R	Lease:
Name:	API:	Entity:	S	T	R	Lease:
Name:	API:	Entity:	S	T	R	Lease:

OPERATOR CHANGE DOCUMENTATION

LEC 1. (r649-8-10) Sundry or other legal documentation has been received from the **FORMER** operator (attach to this form). (7-26-96)

LEC 2. (r649-8-10) Sundry or other legal documentation has been received from the **NEW** operator (Attach to this form). (7-26-96)(5-23-97)

N/A 3. The **Department of Commerce** has been contacted if the new operator above is not currently operating any wells in Utah. Is the company **registered with the state?** (yes/no) _____ If yes, show company file number: _____.

N/A 4. **FOR INDIAN AND FEDERAL WELLS ONLY.** The BLM has been contacted regarding this change. Make note of BLM status in comments section of this form. BLM approval of **Federal** and **Indian** well operator changes should ordinarily take place prior to the division's approval, and before the completion of **steps 5 through 9** below.

LEC 5. Changes have been entered in the **Oil and Gas Information System** (3270) for each well listed above. (6-6-97)

LEC 6. **Cardex** file has been updated for each well listed above. (6-6-97)

LEC 7. Well **file labels** have been updated for each well listed above. (6-6-97)

LEC 8. Changes have been included on the monthly "Operator, Address, and Account Changes" **memo** for distribution to Trust Lands, Sovereign Lands, UGS, Tax Commission, etc. (6-6-97)

LEC 9. A folder has been set up for the **Operator Change file**, and a copy of this page has been placed there for reference during routing and processing of the original documents.

c:\dons\wpdocs\forms\operchng

- OVER -

OPERATOR CHANGE WORKSHEET (continued) - Initial each item when completed. Write N/A if item is not applicable.

ENTITY REVIEW

LEC 1. (r649-8-7) **Entity assignments have been reviewed** for all wells listed above. Were entity changes made? (yes/no) ____ If entity assignments were changed, attach copies of Form 6, Entity Action Form.

N/A 2. Trust Lands, Sovereign Lands, Tax Commission, etc., have been **notified** through normal procedures of entity changes.

BOND VERIFICATION - (~~FEE WELLS ONLY~~) Trust Lands / Bond ext. in progress, OK per E. Bonner. 80,000 1 DLOC "First Bank of MT"

LEC 1. (r649-3-1) The NEW operator of any fee lease well listed above has furnished a proper bond.

N/A 2. A **copy of this form** has been placed in the new and former operator's bond files.

N/A 3. The **FORMER** operator has requested a release of liability from their bond (yes/no) ____, as of today's date ____. If yes, division response was made to this request by letter dated ____.

LEASE INTEREST OWNER NOTIFICATION OF RESPONSIBILITY

DTS 1. Copies of documents have been sent on 6/13/97 to Ed Bonner at Trust Lands for changes involving State leases, in order to remind that agency of their responsibility to review for proper bonding.

N/A 2. (r649-2-10) The former operator of any fee lease wells listed above has been contacted and informed by letter dated ____ 19 __, of their responsibility to notify all interest owners of this change.

FILMING

VD 1. All attachments to this form have been **microfilmed.** Today's date: 6.30.97.

FILING

__ 1. **Copies** of all attachments to this form have been filed in each **well file.**

__ 2. The **original of this form,** and the **original attachments** are now being filed in the Operator Change file.

COMMENTS

970606 Trust Lands, bond ok "1 yr. ext. in progress".

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

RECEIVED
JUL 31 1995
DIV. OF OIL, GAS & MINING

6. Lease Designation and Serial Number: ML-28042

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT -- for such proposals

7. Indian Allottee or Tribe Name:

8. Unit or Communitization Agreement: Dirty Devil

1. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other (specify) _

9. Well Name and Number: Dirty Devil 31-15A

2. Name of Operator: Gerrity Oil & Gas Corporation

10. API Well Number: 43-047-31726

3. Address of Operator: 4100 E. Mississippi Ave., #1200, Denver CO 80222

4. Telephone Number: 303/757-1110

11. Field and Pool, or Wildcat: Bonanza

5. Location of Well
Footage : 616' FNL & 1829' FEL
QQ, Sec, T., R., M. : NWNE Sec. 15-T9S-R24E
County : Uintah
State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
[ ] Abandonment	[ ] New Construction	[ ] Abandonment *	[ ] New Construction
[ ] Casing Repair	[ ] Pull or Alter Casing	[ ] Casing Repair	[ ] Pull or Alter Casing
[ ] Change of Plans	[ ] Recompletion	[ ] Change of Plans	[ ] Shoot or Acidize
[ ] Conversion to Injection	[ ] Shoot or Acidize	[ ] Conversion to Injection	[ ] Vent or Flare
[ ] Fracture Treat	[ ] Vent or Flare	[ ] Fracture Treat	[ ] Water Shut-Off
[ ] Multiple Completion	[ ] Water Shut-Off	[X] Other Change of Operator	
[ ] Other _____			

Approximate Date Work Will Start _____

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accomplanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please be advised that Gerrity Oil & Gas Corporation is considered to be the operator of the Dirty Devil #31-15A, NWNE Section 15, Township 9 South, Range 24 East, Uintah County, Utah; and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by United States Fire Insurance Company.

14. I hereby certify that the foregoing is true and correct
Name & Signature D. Allt Robinson
Valley Operating Inc.
Title Vice President Date 07/24/95

14. I hereby certify that the foregoing is true and correct
Name & Signature Terry L. Kay Dow
Gerrity Oil & Gas Corporation
Title Vice President Date 07/24/95

(State Use Only)

(8/90)

See Instructions on Reverse Side

DOGM SPEED LETTER

To: Ed Bonner	**From:** Don Staley
School & Institutional Trust	Division of Oil, Gas & Mining
Lands Administration	
Subject: Operator Change	

MESSAGE **Date** Sept 6 **19** 95

Ed,

For your information, attached are copies of documents regarding an operator change on a state lease(s) These companies have complied with our requirments. Our records have been updated. Bonding should be reviewed by your agency ASAP.

Former Operator: VALLEY OPERATING INC (N8270)

New Operator: GERRITY OIL & GAS CORP (N6355)

Well(s):	API:	Entity:	S-T-R:	Lease:
Dirty Devil Unit 11-29	43-047-31617	09586	29-9S-24E	ML22161
Dirty Devil 31-15A	43-047-31726	10697	15-9S-24E	ML28042
Conoco State 32-2	43-047-30100	10096	32-8S-25E	ML11124

cc: Operator File

Signed Don Staley

REPLY **Date** _____ **19** _____

Signed _____

FORMS\SPEEDLTR

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

Routing:
1-LEC 7-PL
2-LWP 8-SJ
3-DTS 9-FILE
4-VLC
5-RJF
6-LWP

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

X Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator ☐ Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 7-24-95)

TO (new operator) GERRITY OIL & GAS CORP
(address) 4100 E MISSISSIPPI #1200
DENVER CO 80222
TERRY RUBY
phone (303) 757-1110
account no. N 6355

FROM (former operator) VALLEY OPERATING INC
(address) 745 GILPIN ST
DENVER CO 80218-3633
LEE ROBINSON
phone (303) 289-7720
account no. N 8270

Well(s) (attach additional page if needed):

Name: DIRTY DEVIL UNIT 11-29	API: 43-047-31617	Entity: 9586	Sec 29	Twp 9S	Rng 24E	Lease Type:	ML22161
*Name: DIRTY DEVIL 31-15A	API: 43-047-31726	Entity: 10697	Sec 15	Twp 9S	Rng 24E	Lease Type:	ML28042
Name: CONOCO STATE 32-2	API: 43-047-30100	Entity: 10096	Sec 32	Twp 8S	Rng 25E	Lease Type:	ML11124
Name: COYOTE BASIN 28-1	API: 43-047-30098	Entity: 10095	Sec 28	Twp 8S	Rng 25E	Lease Type:	U016257
Name: FEDERAL 13-1	API: 43-047-31811	Entity: 10796	Sec 13	Twp 8S	Rng 23E	Lease Type:	U61396
Name: ~~DEVILS PLAYGROUND 23-17~~	API: ~~43-047-30568~~	Entity: ~~6136~~	Sec ~~17~~	Twp ~~9S~~	Rng ~~24E~~	Lease Type:	~~U31266~~
Name: ~~DEVILS PLAYGROUND 23-20~~	API: ~~43-047-31009~~	Entity: ~~10698~~	Sec ~~20~~	Twp ~~9S~~	Rng ~~24E~~	Lease Type:	~~U31266~~

OPERATOR CHANGE DOCUMENTATION

Lec 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Rec'd 7-31-95)

Lec 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Rec'd 7-31-95)

Lec 3. The Department of Commerce has been contacted if the new operator above ~~is~~ not currently operating any wells in Utah. Is company registered with the state? (yes/no) ____ If yes, show company file number: #177035. (4-20-95)

Lec 4. **(For Indian and Federal Wells ONLY)** The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.

Lec 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (8-31-95)

LWP 6. Cardex file has been updated for each well listed above. 9-5-95

LWP 7. Well file labels have been updated for each well listed above. 9-5-95

Lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (8-31-95)

Lec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

– OVER –

OPERATOR CHANGE WORKSHEET (CONTINUED) Initial each item when completed. Write N/A if item is not applicable.

ENTITY REVIEW

LeC 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ___ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).

N/A 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only) * Trust Lands / Bond No. 6102086076 ($40,000) United States Fire Insli ($50,000 Req. / In Process of Securing add'l 10,000)

N/A/Le 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.

___ 2. A copy of this form has been placed in the new and former operators' bond files.

___ 3. The former operator has requested a release of liability from their bond (yes/no) ___. Today's date _____ 19___. If yes, division response was made by letter dated _____ 19___.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

N/A 1. (Rule R615-2-10) The former operator/lessee of any **fee lease** well listed above has been notified by letter dated _____ 19___, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.

DTS 2. Copies of documents have been sent to State Lands for changes involving **State leases**. 9/6/95 To Ed Bonner

FILMING

1 1. All attachments to this form have been microfilmed. Date: September 12 19 95.

FILING

___ 1. Copies of all attachments to this form have been filed in each well file.

___ 2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

950815 Blm/Vernal Aprv. Fed. Lease wells "28-1 & 13-1"
Denied "23-17 & 23-20" Will be handled on separate change.
950831 Trust Lands / Proceed with change "Add'l Bonding - In Progress".

Form 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number: ML-28042

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT – for such proposals

7. Indian Allottee or Tribe Name:

8. Unit or Communitization Agreement: Dirty Devil

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other (specify) _

9. Well Name and Number: Dirty Devil 31-15A

2. Name of Operator: Gerrity Oil & Gas Corporation

10. API Well Number: 43-047-31726

3. Address of Operator: 4100 E. Mississippi Ave., #1200, Denver CO 8022

4. Telephone Number: 303/757-1110

11. Field and Pool, or Wildcat: Bonanza

5. Location of Well
Footage : 616' FNL & 1829' FEL
QQ, Sec, T., R., M. : NWNE Sec. 15-T9S-R24E
County : Uintah
State : Utah

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- ☐ Abandonment
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Multiple Completion
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Recompletion
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off
- ☒ Other Water line

Approximate Date Work Will Start: 09/01/95

SUBSEQUENT REPORT
(Submit Original Form Only)

- ☐ Abandonment *
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Other
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Date of Work Completion:

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accomplanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

We propose to install a surface polypipe water line from the Dirty Devil Federal 31-15A to the Federal #14-10 disposal well. Proposed route is shown on the attached map. Dimensions of the line will be 2.375" OD, 1.697" ID, .93 #/ft., SDR 7 polypipe.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

RECEIVED
AUG 21 199

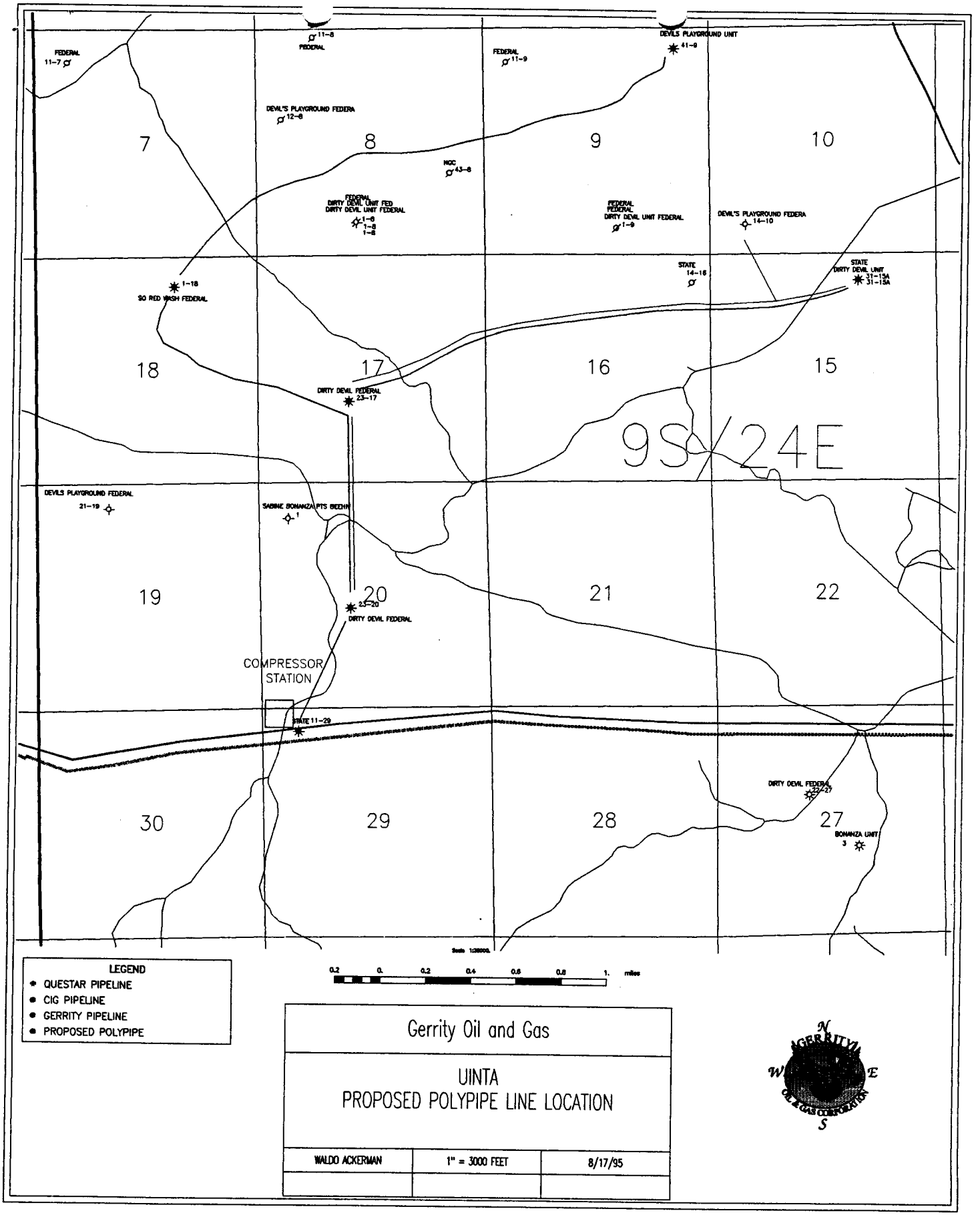
14. I hereby certify that the foregoing is true and correct

Name & Signature: Wald Ahlman Title: Petro. Engineer Date: 8/18/95

(State Use Only)

(8/90)

See Instructions on Reverse Side



Gerrity Oil and Gas

UINTA
PROPOSED POLYPIPE LINE LOCATION

WALDO ACKERMAN	1" = 3000 FEET	8/17/95

LONE MOUNTAIN PRODUCTION COMPANY

Mailing Address:
P.O. Box 80965
Billings, MT 59108-0965

(406) 245-5077
FAX 248-6321

Shipping Address:
1911 King Avenue West
Billings, MT 59102

December 23, 2002

RECEIVED

DIV. OF OIL, GAS & MINING

State of Utah
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, Utah 84114-5801

Attn: Jim Thompson

RE: RESIGNATION OF OPERATOR
VARIOUS WELLS
UINTAH COUNTY, UTAH

Dear Jim:

Please be advised Lone Mountain Production Company resigns as Operator of the following wells in Uintah County, Utah, effective December 1, 2002.

Federal #41-9	43-047-30339	NE NE Section 9: T9S-R24E
State #31-15A	43-047-31726	NW NE Section 15: T9S-R24E
Federal #23-17	43-047-30568	NE SW Section 17: T9S-R24E
Federal #1-18	43-047-30124	NW NE Section 18: T9S-R24E
Federal #23-20	43-047-31009	NE SW Section 20: T9S-R24E
State #11-29	43-047-31617	NW NW Section 29: T9S-R24E

All future correspondence should be directed to Byron R. Woodard, Dark Horse Exploration, Inc., P. O. Box 2153, Evanston, Wyoming 82931-2153. His phone number is (307) 789-1052.

Should you have any questions or need further information, please contact our office at (406) 245-5077.

Sincerely,

LONE MOUNTAIN PRODUCTION COMPANY

Carolyn Farmer

Carolyn (George) Farmer
Land Department

ASSIGNMENT AND BILL OF SALE

This Assignment ("the Assignment"), dated effective December 1, 2002, (the "Effective Date"), by and between Lone Mountain Production Company, whose mailing address is P O. Box 80965, Billings, Montana 59108, (hereinafter called "Assignor"), and Dark Horse Exploration, Inc., whose address is P. O. Box 2153, Evanston, Wyoming 82931, (hereinafter called "Assignee").

WITNESSETH:

Assignor, for and in consideration of the sum of One Hundred Dollars ($100.00) and other good and valuable consideration in hand paid by Assignee to Assignor, the receipt and sufficiency of which are hereby acknowledged, has GRANTED, BARGAINED, SOLD, CONVEYED, ASSIGNED and DELIVERED, and by these presents does hereby GRANT, BARGAIN, SELL, CONVEY, ASSIGN and DELIVER, the Properties unto Assignee. The term "Properties" shall mean all of Assignor's right, title and interest in and to all of the following:

(a) The oil, gas, mineral lease(s) and other interests in oil and gas as described on Exhibit "A," attached hereto and made a part hereof, and all rights, privileges and obligations appurtenant to the leases INSOFAR AND ONLY INSOFAR AS the leases cover and include the lands, depths, and rights as described on Exhibit "A," attached thereto and made a part thereof, (the "Leases");

(b) All oil, gas and condensate wells (whether producing, not producing, or abandoned), water source, water injection and other injection or disposal wells as listed on Exhibit "A," attached hereto and made a part hereof, (the "Wells") and/or located on the Leases or lands unitized or pooled with the Leases;

(c) All equipment, facilities and other personal property on the Leases used in developing or operating the Leases, or producing, treating, storing, compressing, processing or transporting hydrocarbons on or from the Lease;

(d) All easements, rights-of-way, licenses, permits, servitude and similar interest applicable to or used in operating the Leases or the personal property described above, to the extent they are assignable or transferable and subject to any consents to assignment to transfer to which they may be subject;

(e) All contracts and contractual rights, obligations, and interests relating to the Leases, including without limitation, lease purchase option agreements, farmout agreements, farmin agreements, operating agreements, hydrocarbon sales, purchase, gathering, transportation, treating, marketing, exchange, processing and fractionating agreements;

(f) All natural gas, casinghead gas, drip gasoline, natural gasoline, natural gas liquids, condensate, products, crude oil and other hydrocarbons, whether gaseous or liquid, produced from or allocable to the Properties after the Effective Date, or sold on or after the Effective Date (the "Hydrocarbons"); and

(g) All merchantable oil, gas, condensate and distillate, if any, produced from the Properties before the Effective Date and stored above the pipeline connections in Lease stock tanks on the Effective Date.

This Assignment is made expressly subject to, and Assignee's rights, are governed by any oil and gas lease or other instruments of record affecting the lands as described on Exhibit "A," attached hereto and made a part hereof.

To have and to hold same unto Assignee, its successors and assigns, subject to the terms and provisions herein. This Assignment and Bill of Sale is made on an "AS IS, WHERE IS" basis and "WITH ALL FAULTS", and

WITHOUT WARRANTIES WHATSOEVER WITH RESPECT TO ANY INTEREST HEREIN CONVEYED, EITHER EXPRESS OR IMPLIED, it being expressly agreed by Assignor and Assignee that ASSIGNOR MAKES NO WARRANTIES OR REPRESENTATION WITH RESPECT TO ORIGIN, QUANTITY, QUALITY, CONDITION, MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, SAFETY OF EQUIPMENT, COMPLIANCE WITH GOVERNMENTAL REGULATIONS, TITLE TO PERSONAL PROPERTY, THE QUANTITY, VALUE OR EXISTENCE OF RESERVES OF OIL, GAS, OR OTHER MINERALS PRODUCIBLE OR RECOVERABLE FROM THE ASSIGNED PREMISES, OR OF TITLE TO OR CONDITION OF THE ASSIGNED PREMISES AND RELATED FIXTURES AND IMPROVEMENTS. All descriptions set forth herein and all information heretofore or hereafter furnished Assignee by Assignor concerning the assigned premises, wells and personal property, and the operation thereof, have been and shall be furnished solely for Assignee's convenience and have not constituted and shall not constitute a representation or warranty of any kind by Assignor, and any reliance thereupon by Assignee shall be at Assignee's sole risk and liability.

Assignor and Assignee acknowledge that neither has incurred any liability, contingent or otherwise, for broker's, finder's or other third party fees relating to this Assignment for which the other shall have responsibility. All fees, costs and expenses incurred by Assignor or Assignee relating to this Assignment shall be paid by the party incurring same. All recording and transfer fees shall be paid by Assignee.

Assignee agrees to protect, indemnify and hold Assignor harmless from and against any and all liability, loss, damage, injury, claims, demands and causes of action therefor asserted or filed after the effective date hereof in any arising from operations or activities related to the Assigned premises, wells and personal property and the contracts and agreements appertaining thereto including, but not limited to acts or omissions of Assignor, based upon any theory of negligence, will misconduct, liability without fault or other.

Assignee shall assume all risk, liability, obligation and loss in connection with, and shall defend, indemnify and save and hold harmless Assignor, its affiliates, employees, agents, successors and assigns forever from and against all losses incurred in connection with any Environmental Matter. "Environmental Matter" shall mean the following matters arising in connection with the subject property regardless of whether incurred with respect to events occurring prior to or after the effective date hereof: i) the violation of, and compliance with the past, present and future laws relating to environmental matters, including environmental laws and common law; ii) remediation and restoration of the subject property, including, without limitation, plugging and abandonment and remediation of well sites; iii) any and all claims arising from the presence of Naturally Occurring Radioactive Materials (NORM); iv) laws relating to public health or employee health and safety; and v) damage to persons or property on account of pollutants.

This Assignment hereof shall bind and inure to the benefit of Assignor and Assignee and their respective successors and assigns.

EXECUTED on the 9th day of December, 2002, but effective for all purposes as of the Effective Date.

ASSIGNOR:

LONE MOUNTAIN PRODUCTION COMPANY

By: _____
James G. Routson, President

ATTEST:

_____
Judy K. Rice, Secretary

ASSIGNEE:

ATTEST:

DARK HORSE EXPLORATION, INC.

By: Byron R. Woodard
Byron R. Woodard, President & CEO

ACKNOWLEDGMENTS

STATE OF MONTANA)
ss.
COUNTY OF YELLOWSTONE)

The foregoing instrument was acknowledged before me this 9th day of December, 2002, by James G. Routson, President of Lone Mountain Production Company.

WITNESS my hand and official seal.

(SEAL)

Carolyn F. George
CAROLYN F. GEORGE
NOTARY PUBLIC for the State of Montana
Residing at P. O. Box 80965, Billings, Montana 59108
My Commission Expires: October 20, 2003

STATE OF WYOMING)
ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this 19th day of December, 2002, by Byron R. Woodard, President & CEO of Darkhorse Exploration, Inc.

WITNESS my hand and official seal.

(SEAL)

DAWNE MORPHEW NOTARY PUBLIC
COUNTY OF UINTA
STATE OF WYOMING
MY COMMISSION EXPIRES APRIL 4, 2006

Dawne Morphew
NOTARY PUBLIC
Residing at Wamsutter Wy.
My Commission Expires: April 4, 2006

EXHIBIT "A"

Attached and made a part of that certain Assignment and Bill of Sale, dated effective December 1, 2002, by and between Lone Mountain Production Company, Assignor, and Dark Horse Exploration, Inc., Assignee.

LEASES

Lessor	Lessee	Lease Date	Land Description
Lease #U-0145459	Jack A. Dubel	4/1/66	Township 9 South, Range 24 East, S.L.M. Section 7: SE¼, E½SW¼ Section 8: W½SW¼ Section 17: W½NW¼ Section 18: NE¼, E½NW¼ Uintah County, Utah
Lease #U-5217	Roy G. Stouffer	3/1/68	Township 9 South, Range 24 East, S.L.M. Section 9: NE¼NE¼, S½NE¼ Uintah County, Utah
Lease #U-31266	Ira S. Lipkin	11/1/75	Township 9 South, Range 24 East, S.L.M. Section 17: S½ Section 19: All Section 20: All Uintah County, Utah
Lease #ML-22161	John H. Morgan Jr.	1/1/65	Township 9 South, Range 24 East, S.L.M. Section 29: W½ Uintah County, Utah
Lease #ML-28042	Raymond Chorney	2/1/72	Township 9 South, Range 24 East, S.L.M. Section 15: Lots 1, 2, 3, 4, N½, N½SE¼, NW¼SW¼, N½SW¼SW¼, SW¼SW¼SW¼, N½SE¼SW¼SW¼, SW¼SE¼SW¼SW¼ Uintah County, Utah

WELLS

Federal #1-18
Federal #41-9
Federal #23-17
Federal #23-20
State #11-29
State #31-15A

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: ML-28042

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number: Dirty Devil State No. 31-15A

9. API Well Number: 43-047-31726

10. Field and Pool, or Wildcat: Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL ☐ GAS ☒ OTHER:

2. Name of Operator: Dark Horse Exploration, Inc.

3. Address and Telephone Number: P. O. Box 2153, Evanston, Wyoming 82931-2153

4. Location of Well
Footages: 616' FNL, 1829' FEL
QQ, Sec, T, R, M: NWNE Section 15: T9S-R24E
County: Uintah
State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandon	☐ New Construction	☐ Abandon *	☐ New Construction
☐ Repair Casing	☐ Pull or Alter Casing	☐ Repair Casing	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recomplete	☐ Change of Plans	☐ Reperforate
☐ Convert to Injection	☐ Reperforate	☐ Convert to Injection	☐ Vent or Flare
☐ Fracture Treat or Acidize	☐ Vent or Flare	☐ Fracture Treat or Acidize	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☒ Other Change of Operator	
☐ Other			

Approximate date work will start: _____

Date of work completion: _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Dark Horse Exploration, Inc. has assumed operation of the above referenced well, effective December 1, 2002. The former operator was Lone Mountain Production Company.

Bond coverage is provided by Dark Horse Exploration's well bond # 0007

13. Name & Signature: Byron R. Woodard Title: President/CEO Date: 12-15-02

(This space for State use only)

RECEIVED
JAN 03 2003
DIV. OF OIL, GAS & MINING

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. GLH
2. CDW ✓
3. FILE

X Change of Operator (Well Sold) Designation of Agent/Operator

Operator Name Change Merger

The operator of the well(s) listed below has changed, effective: **12-1-02**

FROM: (Old Operator):		**TO:** (New Operator):
LONE MOUNTAIN PRODUCTION CO		DARK HORSE EXPLORATION INC
Address: P O BOX 80965		Address: P O BOX 2153
BILLINGS, MT 59108-0965		EVANSTON, WY 82931-2153
Phone: 1-(406)-245-5077		Phone: 1-(307)-789-1052
Account No. N7210		Account No. N2330

CA No. **Unit:**

WELL(S)

NAME	SEC TWN RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
DIRTY DEVIL 31-15A	15-09S-24E	43-047-31726	10697	STATE	GW	S
DIRTY DEVIL U 11-29	29-09S-24E	43-047-31617	9586	STATE	GW	S

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 12/26/2002
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 01/03/2003
3. The new company has been checked through the **Department of Commerce, Division of Corporations Database on:** 01/30/2003
4. Is the new operator registered in the State of Utah: YES Business Number: 4820055-0143
5. If **NO**, the operator was contacted contacted on: _____

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: N/A

8. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: N/A

9. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: N/A

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 01/30/2003
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 01/30/2003
3. Bond information entered in RBDMS on: N/A
4. Fee wells attached to bond in RBDMS on: N/A

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: 0007-0008

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: N/A

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: N/A

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number N/A
2. The **FORMER** operator has requested a release of liability from their bond on: N/A
   The Division sent response by letter on: N/A

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

State of Utah

Department of
Natural Resources

Division of
Oil, Gas & Mining

ROBERT L. MORGAN
Executive Director

LOWELL P. BRAXTON
Division Director

April 16, 2004

CERTIFIED MAIL NO. 7002 0510 0003 8602 6358

Bryon Woodard
Dark Horse Exploration, Inc.
P.O. Box 2153
Evanston, Wyoming 82931-2153

Re: Extended Shut-in and Temporary Abandoned Well Requirements for Fee or State Leases.

Dear Mr. Woodard:

Dark Horse Exploration Inc., as of April 2004, has one (1) State Lease Well (see attachment A) that is currently in non-compliance for extended shut-in or temporary abandonment status. Wells SI/TA beyond twelve (12) consecutive months requires filing a Sundry Notice (R649-3-36-1). Wells with five (5) years non-activity or non-productivity shall be plugged, unless the Division grants approval for extended shut-in time upon a showing of good cause by the operator (649-3-36-1.3.3). For extended SI/TA consideration the operator shall provide the Utah Division of Oil, Gas & Mining with the following:

1. Reasons for SI/TA of the well (R649-3-36-1.1).
2. The length of time the well is expected to be SI/TA (R649-3-36-1.2), and
3. An explanation and supporting data if necessary, for showing the well has integrity, meaning that the casing, cement, equipment condition, static fluid level, pressure, existence or absence of Underground Sources of Drinking Water and other factors do not make the well a risk to public health and safety or the environment (R649-3-36-1.3).

Submitting the information suggested below may help show well integrity and may help qualify your well for extended SI/TA. **Note: As of July 1, 2003, wells in violation of the SI/TA rule R649-3-36 may be subject to full cost bonding (R649-3-1-4.2, 4.3).**

1. Wellbore diagram, and
2. Copy of recent casing pressure test, and
3. Current pressures on the wellbore (tubing pressure, casing pressure, and casing/casing annuli pressure) showing wellbore has integrity, and
4. Fluid level in the wellbore, and
5. An explanation of how the submitted information proves integrity.

If the required information is not received within 30 days of the date of this notice, further actions may be initiated. If you have any questions concerning this matter, please contact me at (801) 538-5281.

Sincerely,

Dustin K. Doucet
Petroleum Engineer

jc
cc: John Baza
Well File
SITLA

Dark Horse Exploration, Inc.

	Well Name	API	Lease Type	Years Inactive
1	Dirty Devil 31-15A	43-047-31726	State	6 Years 8 Months

Attachment A

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-28042

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: Dirty Devil

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: Dirty Devil 31-15A

2. NAME OF OPERATOR: Thurston Energy Operating Company, LLC

9. API NUMBER: 4304731726

3. ADDRESS OF OPERATOR: PO Box 240 CITY Vernal STATE UT ZIP 84078

PHONE NUMBER: (435) 789-2653

10. FIELD AND POOL, OR WILDCAT: Bonanza

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 616' FNL & 1829' FEL

COUNTY: Uintah

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 15 9S 24E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: _____	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion: _____	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER: _____
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Please be advised that Thurston Energy Operating Company, LLC is assuming operations of the Dirty Devil #31-15A, NWNE Section 15, Township 9 South, Range 24 East, Uintah County, Utah; and is responsible under the terms and conditions of the lease for the operations conducted upon the lands.

Bond coverage is provided by Thurston Energy Operating Company's oil and gas bond #0269434510.

NAME (PLEASE PRINT) Ralph Curton Jr. TITLE President

SIGNATURE [signature] DATE 6/8/2005

(This space for State use only)

APPROVED 8/24/2005
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

(See Instructions on Reverse Side)

(5/2000)

RECEIVED
JUN 13 2005
DIV. OF OIL, GAS & MINING

THURSTON ENERGY OPERATING COMPANY, LLC

SELF-CERTIFICATION STATEMENT

The following self-certification statement is provided per Federal requirements dated June 15, 1988.

Please be advised that Thurston Energy Operating Company, LLC are considered to be the operator of the following well.

Dirty Devil No. 31-15A
NW ¼, NE ¼, Section 15, T9S, R24E
Lease ML-28042
Uintah County, Utah

Thurston Energy Operating Company, LLC is responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage is provided by Thurston Energy Operating Company's oil and gas bond #0269434510.

Ralph Curton
President
Thurston Energy Operating Company, LLC
PO Box 240
Vernal, UT 84078
(214) 704-3896 Cell
(214) 849-5501 Fax
rcurton@att.net

Dear Arleen Russell

Dark Horse Exploration is the Lease holder for 31-15A and 11-29 located south of Vernal Utah. We do not agree to change Operator ship to anyone.

As for are Federal leases 1-18, 23-17, 23-20, and 41-9 located south of Vernal Utah. We do not agree to change operator ship to anyone.

Thank you,
Byron R Woodard
CEO
Dark Horse Exploration Inc.

DESIGNATION OF OPERATOR

The undersigned is, on the records of the School and Institutional Trust Lands Administration, holder of lease, ML 28042

And hereby designates:

NAME: Thurston Energy Operating Company, LLC

ADDRESS: PO Box 240
Vernal, UT 84078

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the Director of the Administration or his representative may serve written or oral instructions in securing compliance with the Rules and Regulations Governing the Issuance of Mineral Leases with respect to (describe acreage to which this designation is applicable):

Dirty Devil 31-15A
NW NE, Section 15, T9S R24E
Uintah County, Utah

Operator agrees to comply with all lease provisions, statutes, rules, and regulations, whether federal, state, or local, in its operations on the subject lease.

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Rules and Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Director, Trust Lands Administration or his representative.

The lessee agrees promptly to notify the Trust Lands Administration of any change in the designated operator.

President
Signature of Lessee
Thurston Energy LLC

August 1, 2005
Date

2754 W. Hwy 40 Vernal, UT 84078
Address

August 1 2005
Date

Signature of Operator
Thurston Energy Operating Company LLC

RECEIVED
AUG 02 2005
DIV. OF OIL, GAS & MINING

This letter constitutes final agency action pursuant to *Utah Administrative Code* R850-8-900. This decision may be appealed by following the requirements of *Utah Administrative Code* R850-8-800 and R850-8-1000 (enclosed) for filing a petition requesting review of this action by the Trust Lands Administration's Board of Trustees. A petition for review must be filed within fourteen (14) days of the mailing date of this letter. In the event that a petition meeting the requirements of R850-8-800 and R850-8-1000 is not filed at the office of the director by 5:00 p.m. on Wednesday, August 31, 2005, this final decision will become unappealable.

Sincerely yours,

John W. Andrews
Associate Director

Enclosure

Cc: Thurston Energy Operating Company, LLC
UDOGM
Vernal Field Office, BLM
LaVonne Garrison, SITLA
Ed Bonner, SITLA

State of Utah

School and Institutional
TRUST LANDS ADMINISTRATION

675 East 500 South, Suite 500
Salt Lake City, Utah 84102-2818
801-538-5100
801-355-0922 (Fax)
http://www.trustlands.com

Jon M. Huntsman, Jr.
Governor

Kevin S. Carter
Director

August 17, 2005

Certified Mail, Return Receipt Requested
Receipt No. 7004 0550 0000 1734 2075

Dark Horse Exploration, Inc.
P.O. Box 2153
Evanston, Wyoming 82931-2153

Attn. Byron R. Woodard

Re: Approval of Change of Operator for ML 28042 (Dirty Devil 31-15A Well) and ML 22161 (Dirty Devil 11-29 Well)

Gentlemen:

The School and Institutional Trust Lands Administration (the "Trust Lands Administration") is in receipt of correspondence dated June 9, 2005 on behalf of Thurston Energy, Inc. ("Thurston") removing Dark Horse Exploration, Inc. ("Dark Horse") as operator of the above-referenced state oil and gas leases and associated wells, in accordance with an Operating Agreement between the parties dated as of May 1, 2003. Thurston has filed Designation of Operator forms with the Trust Lands Administration designating Thurston Energy Operating Company, LLC ("Thurston Operating") as the replacement operator for these leases/wells, and has filed all required bonding with respect to the wells.

The U.S. Bureau of Land Management, Vernal Field Office ("BLM") has approved Thurston Operating as replacement operator for adjacent federal wells. In part, this determination was based upon significant operational and environmental problems associated with the federal wells. The Trust Lands Administration has been provided with information that indicates that these problems extend to the wells located on the above-referenced state leases. The Trust Lands Administration concurs with BLM that a change in operator would enhance operations on the leases, which in the case of the state leases would be in the best interests of the trust beneficiaries.

The Trust Lands Administration hereby accepts Thurston Operating as replacement operator for the above referenced leases/wells, and consents to the replacement of Dark Horse by Thurston Operating as designated operator in the records of the Utah Division of Oil, Gas & Mining. This acceptance is without waiver of any claims that the Trust Lands Administration may have against Dark Horse with respect to environmental damages, unpaid royalties, or other causes.

Utah!
Where ideas connect TM

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. DJJ
2. CDW
3. FILE

X Change of Operator (Well Sold)

Designation of Agent/Operator

Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective: **6/15/2005**

FROM: (Old Operator):	**TO:** (New Operator):
N2330-Dark Horse Exploration Inc	N2790-Thurston Energy Operating Co LLC
(by UAC R850-8-900)	PO Box 240
PO Box 2153	Vernal, UT 84078
Evanston, WY 82931-2153	
Phone: 1-(307) 789-1052	Phone: 1-(435) 789-2653

CA No. **Unit:**

WELL(S)

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
DIRTY DEVIL 31-15A	15	090S	240E	4304731726	10697	State	GW	S
DIRTY DEVIL UNIT 11-29	29	090S	240E	4304731617	9586	State	GW	S

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: See Note
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/14/2005
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 6/7/2005
4. Is the new operator registered in the State of Utah: YES Business Number: 5917957-0161
5. If **NO**, the operator was contacted contacted on:

6a. (R649-9-2)Waste Management Plan has been received on: requested 7/29/05

6b. Inspections of LA PA state/fee well sites complete on: n/a

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM n/a BIA n/a

8. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: n/a

9. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: n/a

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 8/24/2005
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 8/24/2005
3. Bond information entered in RBDMS on: n/a
4. Fee/State wells attached to bond in RBDMS on: n/a
5. Injection Projects to new operator in RBDMS on: n/a
6. Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: n/a

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: n/a

FEE & STATE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 269434510
2. The **FORMER** operator has requested a release of liability from their bond on: not yet
   The Division sent response by letter on: _____

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS:

"Trust Lands Administration concurs with BLM that a change in operator would enhance operations on leases, which in the case of the state leases would be in the best interests of the trust beneficiaries." BLM approved operator change per rule 43 CFR 3161.2 "After a review by this office, it has been determined that the leases are owned equally by Thurston and Dark Horse. When, as here, **ownership of the lease is equally held**, BLM has discretion to choose an operator that it deems best able to conduct operations in conformance with this policy."

THURSTON ENERGY OPERATING COMPANY
P. O. Box 240
Vernal, Utah 84078

November 8, 2005

T09S R24E S-15
43-047-31726

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

ATTN: Carol Daniels

Carol,

Please find enclosed the following logs.

Dirty Devil 11-29
- Formation Evaluation for Stimulation

Dirty Devil 23-20
- Formation Evaluation for Stimulation
- Thermal Multigate Decay Lithology

Dirty Devil 31-15a
- Formation Evaluation for Stimulation
- Thermal Multigate Decay Lithology

These logs are being submitted to bring Thurston Energy Operating Company into compliance with State of Utah regulations. Please advise if there is further information that you require.

Sincerely,

Will Curton
Consultant

State of Utah

Department of Natural Resources

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

March 29, 2006

43.047.31726

CERTIFIED MAIL NO. 7005 0390 0000 7506 4758

Mr. Ralph Curton Jr.
Thurston Energy Operating Company LLC
P.O. Box 240
Vernal, Utah 84078

Re: Extended Shut-in and Temporarily Abandoned Well Requirements for Fee or State Leases.

Dear Mr. Curton:

As of March 2006, Thurston Energy Operating has one (1) State Lease Well (see attachment A) that is in non-compliance with the requirements for extended shut-in or temporarily abandoned (SI/TA) status. Wells SI/TA beyond twelve (12) consecutive months require the filing of a Sundry Notice in accordance with R649-3-36-1 for Utah Division of Oil, Gas & Mining ("Division") approval. Wells with five (5) years non-activity or non-productivity shall be plugged, unless the Division grants approval for extended shut-in time upon a showing of good cause by the operator (R649-3-36-1.3.3).

For extended SI/TA consideration the operator shall provide the Division with the following:

1. Reasons for SI/TA of the well (R649-3-36-1.1).
2. The length of time the well is expected to be SI/TA (R649-3-36-1.2).
3. An explanation and supporting data if necessary, for showing the well has integrity, meaning that the casing, cement, equipment condition, static fluid level, pressure, existence or absence of Underground Sources of Drinking Water and other factors do not make the well a risk to public health and safety or the environment (R649-3-36-1.3).

Submitting the information suggested below may help show well integrity and may help qualify your well for extended SI/TA. **Note: As of July 1, 2003, wells in violation of the SI/TA rule R649-3-36 may be subject to full cost bonding (R649-3-1-4.2, 4.3).**

1. Wellbore diagram.

2. Copy of recent casing pressure test.

3. Current pressures on the wellbore (tubing pressure, casing pressure, and casing/casing annuli pressure) showing wellbore has integrity.

4. Fluid level in the wellbore.

5. An explanation of how the submitted information proves integrity.

If the required information is not received within 30 days of the date of this notice, further actions may be initiated. If you have any questions concerning this matter, please contact me at (801) 538-5281.

Sincerely,

Dustin K. Doucet
Petroleum Engineer

DKD:mf
Attachment
cc: Well File
Compliance File
SITLA

ATTACHMENT A

	Well Name	Location	API	Lease Type	Years Inactive
1	Dirty Devil 31-15A	NWNE Sec 15-T9S-R24E	43-047-31726	State	1 Years 9 Month

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

September 3, 2008

CERTIFIED MAIL NO.: 7004 2510 0004 1824 6213

Mr. Ralph Curton Jr.
Thurston Energy Operating Company, LLC
PO Box 240
Vernal, UT 84078

9S 24E 15

Re: Dirty Devil 31-15A API# 43-047-31726 & Dirty Devil Unit 11-29 API# 43-047-31617
Extended Shut-in and Temporarily Abandoned Requirements for Wells on Fee or State Leases

Dear Mr. Curton:

Thurston Energy Operating Company, LLC ("Thurston") has two (2) State Mineral Lease Wells (see attachment A) currently in non-compliance for extended shut-in and temporarily abandoned (SI/TA) status. Wells SI/TA beyond twelve (12) consecutive months require the filing of a Sundry Notice in accordance with R649-3-36-1 for Utah Division of Oil, Gas & Mining ("Division") approval. Wells with five (5) years non-activity or non-productivity shall be plugged, unless the Division grants approval for extended shut-in time upon a showing of good cause by the operator (R649-3-36-1.3.3).

This is the second notice of non-compliance that Thurston has received for the Dirty Devil 31-15A well (well 1 on Attachment A). The Division also notified the previous operator, Dark Horse Exploration, on April 16, 2004, by certified mail about this wells non-compliance issue. Please submit your plans to produce or plug this well. If this is not addressed within 30 days, a Notice of Violation will be issued for this well. Also, please submit your plans to produce or plug the Dirty Devil Unit 11-29 well.

For extended SI/TA consideration the operator shall provide the Division with the following:

1. Reasons for SI/TA of the well (R649-3-36-1.1).
2. The length of time the well is expected to be SI/TA (R649-3-36-1.2), and
3. An explanation and supporting data if necessary, for showing the well has integrity, meaning that the casing, cement, equipment condition, static fluid level, pressure, existence or absence of Underground Sources of Drinking Water and other factors do not make the well a risk to public health and safety or the environment (R649-3-36-1.3)

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR
OIL, GAS & MINING

Submitting the information suggested below may help show well integrity and may help qualify your well for extended SI/TA. **Note: As of July 1, 2003, wells in violation of the SI/TA rule R649-3-36 may be subject to full cost bonding (R649-3-1-4.2, 4.3).**

1. Wellbore diagram, and

2. Copy of recent casing pressure test, and

3. Current pressures on the wellbore (tubing pressure, casing pressure, and casing/casing annuli pressure) showing wellbore has integrity, and

4. Fluid level in the wellbore, and

5. An explanation of how the submitted information proves integrity.

If the required information is not received within 30 days of the date of this notice, further actions will be initiated. If you have any questions concerning this matter, please contact me at (801) 538-5281.

Sincerely,

Dustin K. Doucet
Petroleum Engineer

JP/js
Enclosure

cc: Jim Davis, SITLA
Operator Compliance File
Wells File

Attachment A

	Well Name	API	Lease Type	Years Inactive
1	Dirty Devil 31-15A	43-047-31726	State	4 Years 2 Months
2	Dirty Devil Unit 11-29	43-047-31617	ML-22161	1 Year 9 Months

UTAH DEPARTMENT OF NATURAL RESOURCES

Division of Oil, Gas & Mining

Oil and Gas Program

1594 West North Temple, Suite 1210, Box 145801

Salt Lake City, Utah 84114-5801

(801) 538-5340 Phone

(801) 359-3940 Fax

NOTICE OF VIOLATION

STATE OF UTAH

OIL AND GAS CONSERVATION ACT

****

To the following operator:

Name: THURSTON ENERGY OPERATING COMPANY, LLC

Well(s) or Site(s): 1.) DIRTY DEVIL 31-15A API #: 43-047-31726

Date and Time of Inspection/Violation: January 22, 2009

Mailing Address: Attn: Ralph Curton Jr.

1222 Yates Drive

Longview, TX 75601-4667

Under the authority of the Utah Oil and Gas Conservation Act, Section 40-6 et. Seq., Utah Code Annotated, 1953, as amended, the undersigned authorized representative of the Division of Oil, Gas and Mining (Division) has conducted an inspection of the above described site and/or records on the above date and has found alleged violation(s) of the act, rules or permit conditions as described below.

Description of Violation(s):

Rule R649-3-36, *Shut-in and Temporarily Abandoned Wells* –According to Rule R649-3-36, the operator is required to supply the Division with reasons for extended SI/TA, the length of time for extended SI/TA and proof of well bore integrity for every well SI/TA over 12 consecutive months. After 5 years of continued SI/TA, the wells are to be plugged unless good cause is supplied to the Division for extended SI/TA in addition to the required information just mentioned.

The Division notified the previous operator, Dark Horse Exploration, on April 16, 2004, by certified mail about this wells non-compliance issue. When Thurston Energy Operating Company, LLC ("Thurston") assumed ownership of the well, current obligations concerning SI/TA compliance was also assumed. The Division has initiated several contacts with Thurston requesting required documents and action per R649-3-36. On March 29, 2006 the Division notified Thurston by certified mail that the Dirty Devil 31-15A was in non-compliance for SI/TA status. After substantial time had passed, a second notice was sent out via certified mail on September 3, 2008 addressing the wells non-compliance with requirements for SI/TA status. It was also stated that Thurston needed to submit plans to produce or plug this well to the Division within 30 days of the notice or a Notice of Violation would be issued. To date the well has not shown any evidence anything having been done to move the well out of violation status.

Action: For the wells subject to this notice, Retamco shall either submit the information required by R649-3-36, plug and abandon or place the well on production.

THURSTON ENERGY OPERATING COMPANY, LLC

January 22, 2009

Notice of Violation

This notice shall remain in effect until it is modified, terminated, or vacated by a written notice of an authorized representative of the director of the Division of Oil, Gas and Mining. Failure to comply with this notice will result in the Division pursuing further actions against said operator. Further actions may include initiation of agency actions to order full cost bonding and plugging and abandonment of wells and requests for bond forfeiture and civil penalties.

Compliance Deadline: April 1, 2009

Date of Service Mailing: February 11, 2009

CERTIFIED MAIL NO: 7004 2510 0004 1824 6848

Division's Representative

Operator or Representative
(If presented in person)

cc: Jim Davis, SITLA
Well Files
Operator Compliance File

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:	ML-28042
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME:	
8. WELL NAME and NUMBER:	Dirty Devil 31-15A
9. API NUMBER:	4304731726
10. FIELD AND POOL, OR WILDCAT:	Bonanza

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

2. NAME OF OPERATOR: Thurston Energy Operating Company, LLC

3. ADDRESS OF OPERATOR: 4925 Greenville Ave,Ste 900 CITY Dallas STATE TX ZIP 75225 PHONE NUMBER: (214) 704-3896

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 616' FNL & 1829' FEL COUNTY: Uintah

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 15 9S 24E STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: Response to Notice of Violation
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

RESPONSE TO NOTICE OF VIOLATION dated Jan. 22, 2009.
REASON FOR SI/TA OF THE WELL - Thurston initiated a review of the subject well after taking over as operator from Dark Horse Operating. The review included existing logs and existing zones opened for testing. Thurston determined that none of the current zones were capable of production. Thurston embarked on a cased hole logging program. Halliburton logged the subject well and determined that a number of zones could be tested and there was potential for production. Halliburton's estimate of production potential from the two best zones behind pipe is 450 Mcf/day. Funding for the completion work was not provided to the operator. The operator has made numerous attempts to find funding over the last 4 years. Funding has been found and will be in place within the next 90 days.
LENGTH OF TIME THE WELL IS EXPECTED TO BE SI/TA - The operator will test the additional zones identified by Halliburton. If any zones tests more than 100 Mcf/day a new pipeline will be installed to the subject well. The prior operator removed the gas gathering line. Thurston has permitted a replacement line with the BLM. Thurston has also permitted 2 wells on the subject lease. The lease has had the surface ownership changed from SITLA to the BLM. The ROW application for the surface disturbance of the two new wells has taken over 4 years to complete and is currently in the final stages of being issued.
SHOW THE WELL HAS INTEGRITY- Please find attached well bore diagram. Pressure tests of the casing to the top set of perforations will be conducted within 120 days. The current pressure on the well is 775 psi. There is no tbg in the hole at this time. The fluid level will be evaluated at the time the csg is pressure tested (120 days). Bond logs may be run to determine cement tops if current logs on file do not provide the required information.

NAME (PLEASE PRINT) Bill Ryan (435)-789-0968 TITLE Agent 2/5/2010

SIGNATURE _____ DATE _____

(This space for State use only)

COPY SENT TO OPERATOR
Date: 8·5·2010
Initials: KS

(5/2000) (See Instructions on Reverse Side)

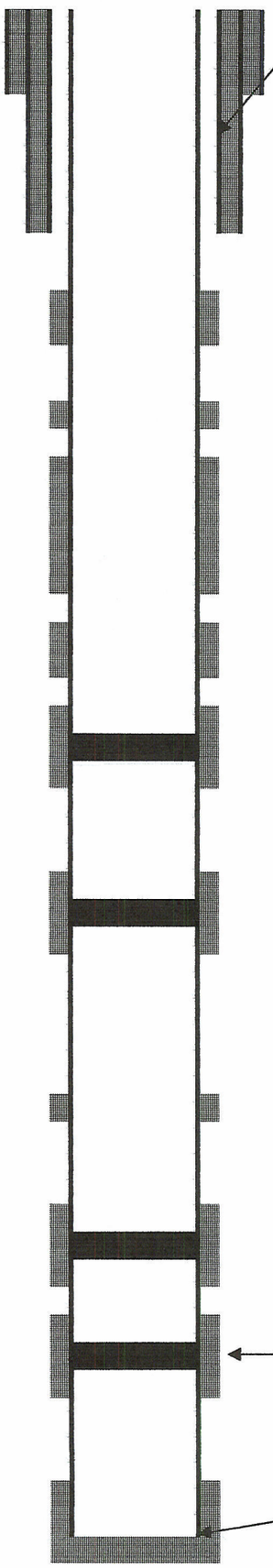
RECEIVED
FEB 09 2010
OIL, GAS & MINING

Accepted by the
Utah Division of
Oil, Gas and Mining
Date: 7/21/10
By: _____
* Requested 120 days has expired

Rocky Mountain Consulting

Office 435-789-0968
Cell 435-828-0968
Fax 435-789-0970
E-mail rmcwar@hotmail

		Date	7-1-09 Bill		
Operator	Thurston Operating	GL	5270'		
Well Number	Dirty Devil 31-15A	KB	10'	5280'	
Location	NW NE Sec 15, T9S, R 24E		Size	Wt	Gr
Wellhead Manufacture		Tbg			
Working Pressure	3000	Csg	4 1/2	17	K-55
Lease	ML 28042		Burst	Ten	Collapse
		Tbg			
		Csg			



9 5/8, 36#, Csg at 250' Cmt w/200 Sk Clas "G"

Tbg Details			Rod Details			
	2 3/8					
	SN					
	2 3/8					
	EOT @					

Perfs 2,686-90
Perfs 2801-05 — Frac ?
IP 5 BOPD, No gas, 15 BWPD
Perfs 3282-86

Perfs 4308-20 Frac w/103,000 20/40 sand & 785 bbls fluid
Test 332 BWPD 6/14/95

Perfs 5514-24' Frac w/49,000 # 20/40 sand & 541 bbls fluid. Test 200 mcf/d

RBP @ 5918

Perf 6281-86
Perf 6346-50
Perf 6366-72

CIBP @ 6370'

Perf 6404-08
Perf 6433-37
Perf 6442-46
Perf 6484-86
Perf 6514-26

Perf 6552-58
Perf 6599-02
Perf 6612-17 — Frac w90,000 # 20/40 sand, 190 ton CO2
IP 200 BO & 681 mcf/d, no water

CIBP @ 7200'

Perf 7211-28'

CIBP @ 7320'

IP 5 BO & 700 mcf/d
Perf 7283-7320'
Perf 7324-38'
Perf 7344-55'

4 1/2" casing run to 7,475' Cmt w/1379 Sk Class "G"
TD 7,496'

UTAH DEPARTMENT OF NATURAL RESOURCES

Division of Oil, Gas & Mining

Oil and Gas Program

1594 West North Temple, Suite 1210, Box 145801

Salt Lake City, Utah 84114-5801

(801) 538-5340 Phone

(801) 359-3940 Fax

NOTICE OF VIOLATION

STATE OF UTAH

OIL AND GAS CONSERVATION ACT

****

To the following operator:

Name: THURSTON ENERGY OPERATING COMPANY, LLC 9S 24E 15

Well(s) or Site(s): 1.) DIRTY DEVIL 31-15A API #: 43-047-31726 ←

2.) DIRTY DEVIL UNIT 11-29 API #: 43-047-31617

Date and Time of Inspection/Violation: April 11, 2011

Mailing Address: Attn: Ralph Curton Jr.

1222 Yates Drive

Longview, TX 75601-4667

Under the authority of the Utah Oil and Gas Conservation Act, Section 40-6 et. Seq., Utah Code Annotated, 1953, as amended, the undersigned authorized representative of the Division of Oil, Gas and Mining (Division) has conducted an inspection of the above described site and/or records on the above date and has found alleged violation(s) of the act, rules or permit conditions as described below.

Description of Violation(s):

Rule R649-3-36, *Shut-in and Temporarily Abandoned Wells* –According to Rule R649-3-36, the operator is required to supply the Division with reasons for extended SI/TA, the length of time for extended SI/TA and proof of well bore integrity for every well SI/TA over 12 consecutive months. After 5 years of continued SI/TA, the wells are to be plugged unless good cause is supplied to the Division for extended SI/TA in addition to the required information just mentioned.

The Division notified the previous operator, Dark Horse Exploration, on April 16, 2004, by certified mail about the Dirty Devil 31-15A wells non-compliance issue. When Thurston Energy Operating Company, LLC ("Thurston") assumed ownership of the well, current obligations concerning SI/TA compliance was also assumed. The Division has initiated several contacts with Thurston requesting required documents and action per R649-3-36. On March 29, 2006, the Division notified Thurston by certified mail that the Dirty Devil 31-15A was in non-compliance for SI/TA status. After substantial time had passed, a second notice was sent out via certified mail on September 3, 2008, addressing the wells non-compliance with requirements for SI/TA status. After not getting any response from Thurston, an NOV was issued on January 22, 2009. Thurston replied to the NOV on February 5, 2010, and requested 120 days to conduct tests on said well. To date the well has not shown any evidence of anything having been done to move this well out of noncompliance.

For the Dirty Devil Unit 11-29, the Division has sent notices of non-compliance to Thurston on the following occasions: On September 3, 2008, a first notice was sent. On February 25, 2009, a second notice was sent. Thurston responded on February 5, 2010, stating the well would be put on production within 90 days. On October 22, 2010, a sundry was received by the Division from Thurston, stating this well had returned to production effective October 5, 2010. Ample time has passed since this sundry was received and the Division has not seen or received any supporting data or reports concerning this matter. Division records do not show this well to be producing.

Action: For the wells subject to this notice, Thurston Energy Operating Company, LLC shall either submit the information required by R649-3-36, plug and abandon or place these wells on production.

THURSTON ENERGY OPERATING COMPANY, LLC

April 11, 2011

Notice of Violation

This notice shall remain in effect until it is modified, terminated, or vacated by a written notice of an authorized representative of the director of the Division of Oil, Gas and Mining. Failure to comply with this notice will result in the Division pursuing further actions against said operator. Further actions may include initiation of agency actions to order full cost bonding and plugging and abandonment of wells and requests for bond forfeiture and civil penalties.

Compliance Deadline: June 1, 2011

Date of Service Mailing: April 12, 2011

CERTIFIED MAIL NO: 7005 1820 0001 5562 8026

Division's Representative

Operator or Representative

(If presented in person)

cc: LaVonne Garrison, SITLA
Well Files
Operator Compliance File

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-28042

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: DIRTY DEVIL 31-15A

2. NAME OF OPERATOR: THURSTON ENERGY OPERATING

9. API NUMBER: 43047317260000

3. ADDRESS OF OPERATOR: 365 W. 50 N. Ste W-8 , Vernal, UT, 84078

PHONE NUMBER: 214 704-3896 Ext

9. FIELD and POOL or WILDCAT: DEVILS PLAYGROUND

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0616 FNL 1829 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNE Section: 15 Township: 09.0S Range: 24.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 11/28/2010	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: workover well

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Well work summary

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Russell H. Cox	435 789-8580	Operations Manager
SIGNATURE N/A		**DATE** 4/28/2011

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DD 31-15A

Date	Daily Activity
11/28/2010	Well Shut in - Wait on Orders
11/27/2010	Well Shut in - Wait on orders
11/26/2010	Well Shut in - Wait on orders
11/25/2010	Well Shut in-Wait on orders
11/24/2010	Well Shutin-Wait on orders
11/23/2010	Well Shutin-Wait on orders
11/22/2010	Well Shutin-Wait on orders
11/21/2010	Well Shutin-Wait on orders
11/20/2010	Well Shutin-Wait on orders
11/19/2010	Tag fluid @ 400'(Swabbed to 5000' on Wed)-64.25 bbls influx in 39 hrs, As per orders, land tubing, 7007', Hang off tub in B-1 adapter, RDMO service unit & BOP's to the 22-27X- Wait on orders
11/18/2010	Tubing had 20 psi at daylight, blew down quickly, Super sucker cleaned out muck/cuttings from rig tank. Roustabouts had to chip cement from bottm of rig tank, rig tank clean. Rig crew at funneral
11/17/2010	Crew travel, start equipment, safety meeting. 7:00 17:00 TIH for 62 joints, from 5046' to 7068' & tagged cement., TOH for 10 joints to 6742' and start swabbing. Made 20 swab runs and recovered 99.46 bbls, The deepest tag point is 4900'. 4900' of 4 1/2-in 11.7# casing has a volume with tubing in of 68.5 bbls, an influx of 30.96 bbls. The Swab report is attached to this report. 17:00 6:00 13.00 SWIFN Wait on daylight
11/16/2010	Crew travel, start equipment, safety meeting. Halliburton Pump unit has dead batteries, call out menchanic. 7:00 10:49 Run iron , RU bulk truck, tie in rig tank, mechanic replaces Pump unit batteries and found bad alternator, replaced same.PJSM

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10:49 10:53 0.07 Pressure test pumps and lines.
10:53 10:59 Break circulation w fresh water spacer for 10 bbls @ 2 bpm @ 630 psi.
10:59 11:12 Stop circulation mix a RCM tub full of 15.8 G cement @ 4.99 gal/sack mix h2o, 1.15 ft³/sack yield, 0.100 % BWOC HR-5,
11:12 11:27 pump 7 bbls cement slurry down the tubing. Stop pumps and wash pumps and lines to rig tank, while dropping sugar into wash up fluids to kill cement.
11:27 11:32 When pumps are clean, switch to tubing and pump 3.75 bbls fresh water and 21.5 bbls 3% KCL.
11:32 11:44 0.20 Stop pumps, RD tubing on floor and POOH for 8 joints to 7068 f
11:44 12:19 RU iron to tubing and reverse out 1.5 times tubing volume for 41 bbls to clean out cement slurry to 7068 ft.
12:19 13:20 Stop pumps, RD Cement iron from rig floor and TOOH to 5046 ft, 155 jts in- 94 jts out,
13:20 6:00 16.67 SWIFN & WOC (Note: Estimated TOC Drill pipe out is 7093')

11/15/2010 Crew travel, start equipment, safety meeting
7:00 7:30 0.50 RU, Swivel, rig pump and lines. Prepare Jt # 199 @ 6483'
7:30 7:40 0.17 Start reverse circulation
7:40 9:03 Start Swiveling in, clean out Polymer squeeze down to the Composite BP @ 6650'

9:03 9:12 0.15 Tagged BP, Rev out 1.5 time tubing volume.
9:12 9:56 Psi test casing across entire annulus, Testing perfs that have been squeezed, From 2686' to 6617' w BP @ 6650'. Psi to 850 psi , 15-min loss @ 375 psi but had leak @ pipe rams, fix leak and test again.

9:56 10:15 PRESURE TO 850 PSI, 5-min loss 250psi, 10 min loss-325 psi, 15-min loss-375 psi- as per orderes, Re-test

10:15 10:35 PRESURE TO 850 PSI, 5-min loss 150psi, 10 min loss-300 psi, 15-min loss-350 psi

10:35 10:47 0.20 Release psi, start drilling out Composite BP @ 6650'
10:47 15:00 Thru BP, Clean out to last point of penitration at 7331' w 225 jts in 24 jts out. 30K down weight/34K up weight. Reverse circulate 1.5 time tubing volume, TOOH w bit.

15:00 15:20 0.33 Bit @ surface, Tri-cone rollers a little loose but intact.
15:20 16:30 RU and start TIH w open ended tubing w NC, Jt, SN(swabbing type, no profile) tubing to surface.

16:30 16:35 Tubing on bottom @ 7331' ready to set balance cement plug from 7331 to 7080' in the morning.

16:35 6:00 13.42 SWIFN, wait on daylight

11/14/2010 Crew travel, start equipment, safety meeting
7:00 7:40 0.67 RU lines, pump Ect. TOOH to 2604', set pkr,
7:40 13:22 Psi test above packer to 1000 psi for 15-min. No psi loss. TOH w Pkr & wait on orders.

5.7

13:22 15:07 1.75 Make up 3.75" bit & TIH to the Cement Retainer @ 6222'
15:07 15:32 Tag retainer, RU swivel, and start drilling on retainer w reverse circulation, no more than 6K on bit..

0.42

15:32 16:15 Thru retainer, circulate clean, Swivel in 1 more jt, No obstructions or polymer squeeze fluid detected. LD single and swivel, start TIH w 2 stands, Started taking weight on third stand.

0.72

16:15 16:52 BO stand, RU swivel, try to break reverse circulation, psi to high, switch to tubing, break circulation, circulation psi around 1200 psi thru tubing, but falling so roll the hole the long way until returns clean up. Polymer squeeze fluid looked to consistency of 40 # gel but not solid or chunky as expected.

16:52 17:30 Returns clean up, switch back to reverse circulation and swivel down to 199 jts in @ 6483'. Some torque at bit detected but cleaned up to 6483 ft. BP @ 6650' (5 jts)

17:30 17:45 0.25 Reverse circulate 1.5 times tubing volume for 38 bbls,
17:45 18:00 0.25 SWIFN. drain pump and lines, hang jt 199 back on swivel
18:00 6:00 12.00 Crew travel, wait on daylight

11/13/2010 Crew travel, start equipment, safety meeting
7:00 16:00 Finish TOH w Setting tool, TIH w Bit to retainer @ 6222', Circulate hole volume w 3% KCL, close BOP and test all squeeze perfs to 800 psi, leakoff as follows-15-min 500 psi, try again Same results, TOH w Bit assy.

16:00 17:30 TIH w RTTS to 3326 ', psi down tubing to 800 psi, Leak-off as follows w rig pump isolated @ floor. 5-min-250 psi, 10-min-50 psi, Total loss in 15 min-350 psi

17:30 18:21 Switch to BS, psi to 800 psi. Leak-off as follows w rig pump isolated @ squeeze manifold.

5-min-250 psi, 10-min-75 psi, 15-min-75 psi, total loss in 15-min -400 psi, Checked tubing psi -no comunication.

18:21 18:45 Release pkr, TIH to 4435', psi test down tubingTo 800 psi, Leak-off as follows. 5-min-350, 10-min-50 psi, 15-min 50 psi, total loss in 15-min-450 psi

18:45 19:00 Wait on orders, TOH for 10 stands, 652 ft to 3783' to drop fluid level for WH winterization.

19:00 6:00 SWIFN-Wait on daylight. Will test cas above 2686' which is top set of old Squeeze perfs in the AM.

11/12/2010 Crew travel, start equipment, safety meeting
7:00 14:30 RIH with bit to 4600', drill out retainer and chase to bottom, circulate clean 3% KCL, trip out of hole. Lay down bit, make up mechanical setting tool and EZSV cement retainer, trip in hole to 6222', set retainer.

7.5

14:30 18:00 Rig up cement equipment, safety meeting, pressure test lines to 4000, open tbg and get injection rate, .5 BPM @ 1500 psi, shut down and mix H2ZERO, sting out of retainer and pump 20 bbls down tbg to spot H2Zero at end of tbg, sting into retainer and pump into perfs, 10 BBLS into .5 BPM @ 2000 psi, end .4 BPM @ 2500, sting out of retainer, reverse out 1.5 times tbg volume = 36 BBLS, rig down cement equipment

3.5

18:00 19:00 1.00 POOH with tbg for 40 stands, shut well in for night
19:00 6:00 11.00 Crew travel, wait on daylight

11/11/2010 Crew travel, start equipment, safety meeting
7:00 8:00 1.00 Tbg froze up, move in heater and thaw out
8:00 12:00 Swab down tbg to 2000', for negative test, wait 30 minutes, RIH and tag fluid @ 1800', 200' influx, Release packer and trip out of hole

12:00 14:30 Lay down packer, make up bit and bit sub, RIH, tag bridge plug, drill out, chase to bottom with tbg, circulate on bottom for 45 min.

14:30 20:00 POOH with tbg and bit, make up mechanical setting tool, trip in hole, while running in hole retainer set @ 4600', could not work free, pullinto and shear off retainer, pull out of hole, lay down mechanical setting tool

20:00 6:00 10.00 Crew travel, wait on daylight

11/10/2010 Crew travel, start equipment, safety meeting
7:00 11:00 POOH with tbg and stinger, lay down stinger, make up bit, RIH with bit and tbg, tag retainer @ 6240, pick up power swivel, drill out cement retainer, drill out to Bridge plug,

4

11:00 12:00 Pressure test backside to 800 psi from surface to bridge plug @ 6480'. Monitor with squeeze maniflod gauge
PSI to 850
5 min = 650
10 min = 600
15 min = 550
Bleed off to flat tank, watch for flow, small trickle to tank after 10 min.
Call to confirm test results and plan of action, hot shot packer to location
Decision to run packer and test squeeze on perfs from 6281-6446, to 1000 PSI

1

12:00 16:00 POOH with tbg and bit, make up 4 1/2 RTTS packer, RIH with packer and tbg, set packer @ 6240'

4

16:00 18:00 Pressure up tbg to 1000 psi
Try to establish pump in rate, pressure increases steadily, could not establish rate
Begin leak off test @ 1000 PSI, monitor with rig pump gauge
5 min= 800
10 min = 725
15 min = 650
Bleed off pressure to flat tank and watch for flow, small trickle to tank decreasing to few drips after 10 min, same results as previous test.
Wait on orders

2

18:00 6:00 12.00 Crew travel, wait on orders and daylight

11/9/2010 Crew travel, start equipment, safety meeting
7:00 10:00 3.00 Start trip in hole with stinger and tbg, sting into retainer
10:00 13:00 Waiting on cement equipment from Vernal
Haul in 200 BBLS 3% KCL, 60 BBLS fresh water

13:00 14:30 1.50 Cement equipment on location, spot and rig up

14:30 15:30 safety meeting, pressure test lines to 4000, test ok, start injection test on perfs from 6281' - 6446, .3 BPM @ 2400 psi, shut down and mix H20 & Backstop,

15:30 17:30 Sting out of retainer and start to pump H20, spot to end of tbg, sting into retainer and start to inject into formation @ .3 BPM @ 2400 psi, pump away 17 BBLS volume of H2o, sting out of retainer and reverse circulate to flat tank to clear tbg , rig down cement equipment

17:30 18:30 1.00 Start trip out of hole, pull 30 stands, shut well in for night
18:30 6:00 11.50 Crew travel, waiting on daylight

11/4/2010 6:00 6:00 24.00 Waiting on orders and rig

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RECEIVED Apr. 28, 2011

Thurston Energy Operating Company LLC.
4925 Greenville Avenue, Suite 840 Dallas, TX 75206

RECEIVED
MAY 24 2011
DIV. OF OIL, GAS & MINING

May 24, 2011

Hand-Delivered

Dustin Doucet
Utah Department of Natural Resources
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, UT 84114-5801

LaVonne Garrison
Assistant Director, Oil and Gas
State of Utah School and Trust Lands
Administration
675 East 500 South, Suite 500
Salt Lake City, UT 84102

Dear Mr. Doucet and Ms. Garrison:

We write in response to the Notice of Violation issued by the Division of Oil, Gas & Mining on April 11, 2011. On May 9, 2011 a meeting was held which included members of the senior management of Thurston Energy Operating Company (Thurston) and representatives of the State Institutional Trust Land Administration (SITLA) and the Division of Oil, Gas & Mining (DOGM). Those attending were as follows:

LaVonne Garrison	SITLA
Dustin Doucet	DOGM
Ralph Curton, Jr.	Chairman, Thurston Energy LLC
Chris Curton	Operations Manager, Thurston
William Ryan	Senior Engineer, Thurston

At the conclusion of the meeting, Mr. Doucet and Ms. Garrison asked that Thurston reply to the Notice of Violation in writing in order to address the issues raised with regard to the periods of shut-in/TA status of the Dirty Devil 11-29 and the Dirty Devil 31-15A wells on leases ML-22161 and ML-28042, respectively.

Shut-In Wells for Transportation Conditions

Both the Dirty Devil 11-29 (the "11-29") and the Dirty Devil 31-15A (the "31-15A") wells have been capable of production of gas in paying quantities but were shut-in because of the lack of a pipeline system to transport gas from each well to a viable market. When Thurston acquired Lease ML-28042 and the 31-15A well, there was no pipeline to the well. Thurston was able to transport and sell gas from the 11-29 well on Lease ML-22161 from September 2005 until November 2006, when it became apparent that Thurston's equipment was inadequate to continue sales through the Questar pipeline.

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Utah Division of
Oil, Gas and Mining
For Record Only

In order to obtain an adequate pipeline for transport of gas from both the 11-29 and the 31-15A wells, Thurston commenced negotiations with Anadarko in November 2006. Anadarko, dba Westport Field Services, LLC, offered a low pressure line in the area and expressed interest in not only purchasing Thurston's gas, but in purchasing Thurston's gas gathering system as well. Shortly after November 2006, negotiations between Thurston and Anadarko commenced and continued until the transaction was consummated in February 2008. Since Anadarko was purchasing the entire gas gathering system, the accompanying sales agreement with Thurston was exclusive and remains so today.

In order to connect the Anadarko main infrastructure to the Thurston gathering system and wells, and to operate the existing gathering system, Anadarko was required to apply for the right to use, and in some cases, to construct, pipelines on BLM land. The majority of the Right of Way applications were not approved by BLM until September 2010.

Due to the lack of transportation and a viable market for its gas, Thurston was forced to shut-in its wells while waiting for the completion of the Anadarko transaction and the subsequent regulatory approvals. As portions of the pipeline were approved and constructed, Thurston moved to bring its wells back into production.

Lease ML-22161

With respect to the 11-29 well (API #43-047-31617), Lease ML-22161, Thurston filed a Sundry Notice with DOGM in October 2010, stating that production would commence during that month. Production reporting to DOGM did not occur in a timely manner due to inadvertent administrative errors which occurred during the integration of new outside service providers. Thurston regrets this omission and wishes to give assurance that the matter has been addressed and that Thurston's production information is now correct and up to date on the DOGM site.

Thurston took over full ownership of the 11-29 well in 2005. As the new operator, Thurston spent the months of July and August cleaning up locations, repairing gas gathering lines, and repairing the compressor, in order to get ready to market gas. Thurston then produced and sold gas from September 2005 through November 2006.

It then became apparent to Thurston that compressor issues were creating problems "going into" Questar's sales line. The compressor could not meet the requirements at which Questar's line was operating. Soon thereafter, in late 2006, Thurston began negotiating with Anadarko for Anadarko's purchase of Thurston's gathering system. Anadarko offered a low pressure line that Thurston could "go into" where Thurston would not have to compress its gas.

Thurston agreed to a sales contract with Anadarko to market Thurston's gas. As part of this sales contract, Thurston could only sell to Anadarko.

On completion of the sale, Anadarko filed Right of Way applications for its pipelines. The completion of the sale and the submission of the Right of Way applications both occurred in the beginning of 2008. The Rights of Way applications which Anadarko submitted were not approved until September of 2010.

The 11-29 was shut-in due to the following chain of events: (1) compressor issues that did not allow Thurston to meet the requirements to "go into" Questar's line; (2) the negotiations and the sale with Anadarko; and (3) the lack of market by waiting on Rights of Way to be approved and the pipelines to be constructed. As soon as the pipeline was completed in September 2010, Thurston began to sell gas from the 11-29. Thurston produced gas in October, November and December of 2010.

In December 2010, after "shooting" a zone in an off-set well on a different lease, Thurston decided to take a look at a similar zone in the Wasatch on the 11-29. Based on analysis of logs, Halliburton's "Swift Look" model, the engineering report from Haas Engineering, and independent geologists' reports, Thurston decided to workover the well. Thurston moved up the hole to test the Wasatch sand, but the completion was not successful. Thurston then shut-in the well to re-evaluate a future workover plan and has had some delays due to extreme weather conditions. Thurston plans to workover the well by pulling retrievable packer, drilling out the Cast Iron Bridge plug, and putting the well back on production. Thurston will need to change out the pumping unit and plans to have well back on line by mid-June 2011.

In addition to the 11-29, in the fall of 2010, Thurston began construction on the location for the 12-29 well, which has recently received regulatory approval. Thurston submitted an APD for the 12-29 well in April 2006, and in June 2006 Thurston submitted Right of Way applications for the location, road, and pipeline. In May 2009, DOGM rescinded the APD for the 12-29, but the Right of Way applications to BLM continued to move forward. In February 2010, a second APD for the 12-29 well was submitted for the same location but with a different API number in anticipation that the Right of Way applications would soon be approved by the BLM. The Right of Way applications were not approved by the BLM until September 2010. As soon as the Right of Way applications were approved, Thurston began construction on the road and location for the 12-29. Although that work was suspended due to harsh winter weather, Thurston expects to complete that construction shortly and to drill a new well this summer when rigs become available.

Lease ML-28042

In 2005 Thurston took over ownership of lease ML-28042 and the 31-15A well. When Thurston took over ownership there was no pipeline to well, no production equipment, no pressure on well and the location needed to be cleaned up. Thurston immediately began clean up on the well location, including locating the rightful owner of a stacked rig that was on location and getting it removed. Thurston understood that the 31-15A well was capable of production but that the gas could not be marketed because there was no pipeline to the well.

After the location was cleaned up, Thurston brought in a rig and drilled out the existing plugs in the well and logged the well. Thurston then had the logs processed and analyzed by Halliburton (including a complete "Swift Look" report). An engineering report was prepared by Haas Engineering and additional analyses were solicited from other independent geologists and engineers. These logs and engineering reports showed that the 31-15A well was capable of production in paying quantities. In reliance upon these logs and reports, Thurston determined that the 31-15A well was capable of production in paying quantities. Copies of the Halliburton "Swift Look" Report, the Haas Engineering Report, the LaRoach Engineering Report and the applicable well logs are attached hereto as exhibits.

In November 2005 (within four months of acquiring control of the lease), Thurston submitted APD's and Right of Way applications for two new wells, the 5-15 and the 10-15, and a Right of Way application for the 31-15A well. In May 2009, DOGM rescinded the APD's but the Right of Way applications continued to be processed. In February 2010, new APD's were submitted for the 5-15 and the 10-15 wells, which were approved in June 2010. Unfortunately, the Right of Way applications were not approved until September 2010. The Bureau of Land Management's delay in approval of the Right of Way applications forced Thurston to keep the 31-15A well shut in for 4-1/2 years and prevented Thurston from beginning work on the new 5-15 and 10-15 wells.

As soon as the Right of Way applications were approved by BLM, Thurston began construction on the well locations, roads, and pipelines, and Thurston drilled the 5-15 and 10-15 wells. Thurston also began the workover of the 31-15A well in order to be able to market gas as soon as the pipeline was completed. Thurston conducted an integrity test on the 31-15A and found that this well which had been previously capable of production had deteriorated while waiting for the pipeline to be constructed. However, in conjunction with the workover of the 31-15A, Thurston had brought the two new wells, the 5-15 and the 10-15, on line and capable of production in paying quantities. Multiple attempts were made to "save" the 31-15A at a cost of over $600,000. Although the 31-15A had been capable of production in paying quantities, the

well had lost its integrity during the long wait for the pipeline, but at the same time the two new wells on the lease are now capable of production of gas in paying quantities. The two new wells will be marketing gas when the pipeline is completed to these two new wells, and the 31-15A will be plugged and abandoned according to a procedure acceptable to DOGM.

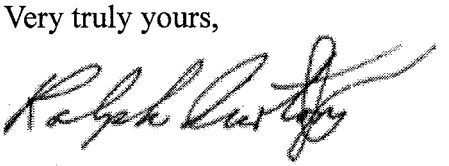
Conclusion

In summary, both the 11-29 and the 31-15A wells have been capable of production of gas in paying quantities but were shut-in because of the lack of a pipeline system to transport gas from each well to a viable market.

With the pipeline completed, the 11-29 well will be producing gas for sale to a commercial market in June 2011. The 12-29 will also be completed shortly.

Although the 31-15A suffered deterioration while waiting for the pipeline to be completed, the 5-15 and 10-15 will be capable of production on Lease ML-28042 and will be connected to the pipeline for transportation and sale of gas.

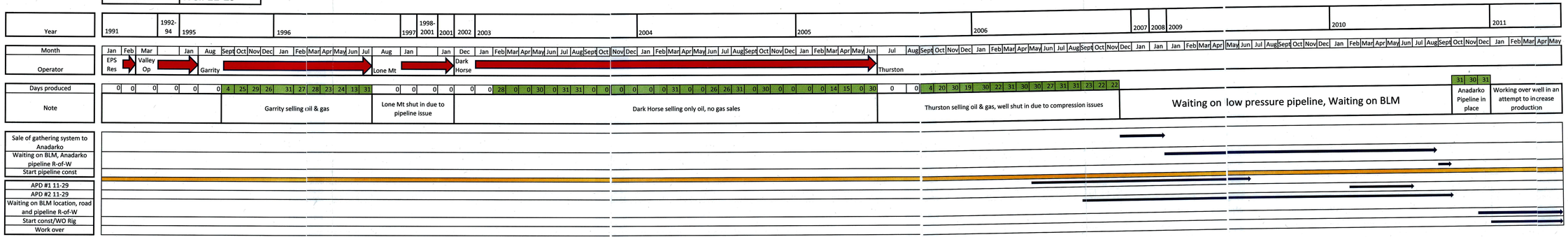
Very truly yours,



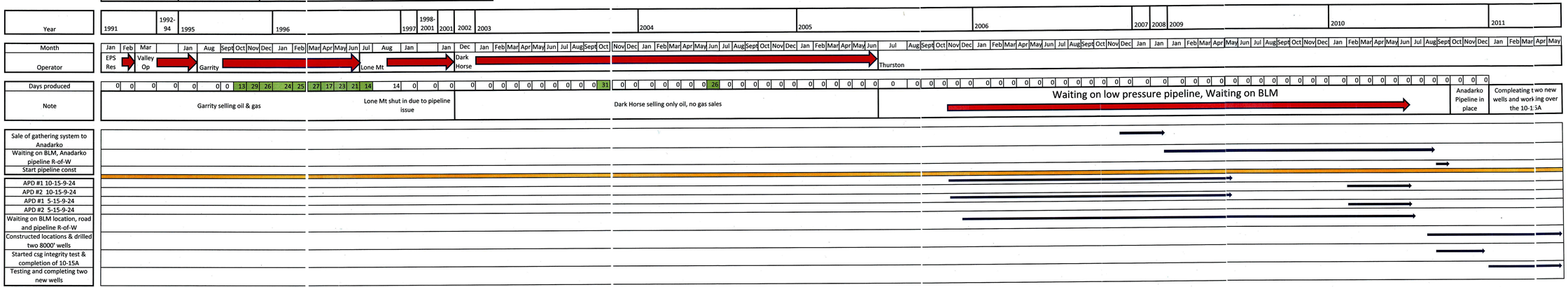
Ralph Curton, Jr.
Chairman

Enclosures: Timelines for 11-29 and 31-15A Wells
Engineering Reports and Logs

ML 22161	Well 11-29



ML 28042	Well 31-15A	Well 10-15-9-24	Well 5-15-9-24



LPC, Inc.
LaRoche Petroleum Consultants, Ltd.

April 21, 2006

Mr. Ralph Curton, Jr., President
Thurston Energy, LLC
2754 W. Hwy. 40
Vernal, Utah 84078

Dear Mr. Curton:

At your request, LaRoche Petroleum Consultants, Ltd. (LPC) has prepared this study encompassing 3,692 gross acres owned by Thurston Energy (Thurston) located in T9S-R24E of Uintah County, Utah. LPC identified and analyzed the results of recent drilling activity in the area to determine if a successful analog exists that indicates the Thurston leasehold is commercially prospective. Recent completions utilizing approximately 15,000 pounds of sand per foot of perforated pay interval have yielded favorable economic results from geologically similar areas. The Thurston leasehold has the potential to perform in a manner similar to these recent completions as discussed below.

HISTORY

Thurston owns leasehold totaling 3,692 acres located in T9S-R24E, Uintah County, Utah (**Maps 1 & 2**) in an area known geologically as the Uintah Basin. The primary producing reservoirs in the Thurston leasehold area are in the Wasatch and Mesa Verde formations at approximately 4,000 to 8,000 feet, with the shallower Green River and deeper Mancos also being prospective. These formations are complex stratigraphic sandstones with a variety of depositional environments. Eight wells have been drilled on the Thurston leasehold by previous operators. Four wells were drilled in the 1970's, two in the 1987 and two in 1995. Two of the wells have been plugged and 6 remain active. Results from these wells have been mixed with individual well cumulative production ranging from 10 MMcf to approximately 700 MMcf. Thurston has drilled one well, the 22-27X, in January 2006. It was drilled through the Wasatch and Mesa Verde to the Mancos where it is currently testing. Wasatch and Mesa Verde pays in the 22-27X have not yet been completed. Within the township (T9S-24E) six wells have been drilled since January 2004 by Houston Exploration, and are now operated by Enduring Resources. The results of these wells have been poor, with per well estimated ultimate recoveries (EURs) ranging from 50 to 150 MMcf. To the west, the Wasatch and Mesa Verde produce in the large Natural Buttes Field which covers in excess of ten townships with more than 3000 wells and has cumulative production of over 1.3 trillion cubic feet. Development has progressed eastward to the Thurston leasehold area. Westport (Kerr McGee), EOG, Questar and others have drilled more than 120 wells since 2004 in 9S-23E and 10S-23E, townships immediately west of the Thurston acreage. EOG Resources has filed an environmental impact statement (EIS) that covers their planned activities in this area and addresses drilling to a spacing of 20 acres per well. This area is extremely active.

4600 Greenville Avenue, Suite 160 • Dallas, Texas 75206 • Phone (214) 363-3337 Fax (214) 363-1608

ANALOG

To develop an analog, LPC selected wells that have been drilled since 2004. These recent wells are indicative of the results being obtained from wells on the expansion edge of the play using current technology for productive sand identification and stimulation. We selected wells in the eastern half of the two offsetting townships (**Map 2**) to allow a review of wells on the edge of the expansion area nearest to the Thurston acreage. Included in our focus area were nineteen wells in T9S-R23E, twenty-three wells in T10S-R23E and the six new wells in T9S-R24E for a total of 48 wells in the data set. We analyzed production graphs for these wells as well as completion and stimulation data. Included in this report are certain data plots and some of these plots also include the Thurston acreage wells for comparison.

From the production graphs, we projected EURs for each well. **Attachment 1** shows the distribution of EURs for all of the study wells. Per well EURs range from 25 MMcf to 2,000 MMcf with an average of 635 MMcf. Distribution plots are created by sorting the data points (EURs) in ascending order and then plotting EUR against the cumulative percentage of the wells. The horizontal axis of the graph should be understood as "percentage of wells less than or equal to" the corresponding EUR. As an example, the last point on Attachment 1 is plotted at EUR = 2.0 Bcf and Percentage of Wells = 100%. This should be understood as "100% of wells have an EUR less than or equal to 2.0 Bcf".

Attachment 2 shows the distribution of EURs when they are grouped by area. Note that the existing wells on the Thurston acreage are identified on this plot. This display shows that the wells in T10S-R23E have significantly larger EURs than the other groups. The average EUR per well for T10S-R23E is 1.0 Bcf. Possible explanations are greater pay thickness, better pay quality, or more effective stimulation. From the completion information, we tabulated the net feet of pay interval perforated in each of the wells. This is not a precise measure of net pay interval, but it serves as a reasonable proxy for the purpose of this project. **Attachment 3** shows the distributions of net perforated pay for the offset areas. The distributions are very similar for all the areas. The amount of perforated pay does not explain the higher EURs for T10S-R23E. The Thurston wells are also displayed here for comparison. The net pay thicknesses used are the results of Halliburton's log analysis from recent electric logs run on all of the Thurston wells. Net pay sand is defined as porosity of 9% or greater and water saturation of 50% or less. **Much of the pay counted here for the existing wells was not perforated in the original completions**. Assuming similar petrophysical cutoffs for the study area wells, this plot indicates that the Thurston wells have net pay thickness equal to or greater than the study area wells. **Attachment 4** is a plot of EUR versus feet of perforated net pay. The plot appears random, with no discernible trend or correlation, demonstrating the same idea as Attachment 3. This is typical of many tight sandstone reservoirs in various producing basins. Variations in permeability and areal extent of productive stringers often result in no correlation.

Next, the size of the hydraulic fracture (frac) stimulation in pounds of sand for each well was tabulated and the pounds of sand per foot of pay perforated (also referred to as "intensity") was calculated. **Attachment 5** shows the distribution of frac stimulation intensity as measured in pounds of sand per foot of pay perforated. This plot shows that the wells in T10S-R23E were stimulated at approximately three times the intensity (15,000 pounds per foot versus 5,000 pounds per foot) that the wells in T9S-R23E and T9S-R24E were stimulated. **Attachment 6** is a plot of EUR versus stimulation intensity in pounds of sand per foot of pay perforated. It shows a correlation of increased EUR with increased stimulation intensity. This suggests that

stimulation with concentrations of sand in the range of 15,000 pounds per foot of perforated pay interval is required to produce the results observed in the T10S-R23 E wells.

The factor of sand quality is difficult to quantify without a detailed petrophysical analysis of each well in the study area. The Enduring wells in T9S-R24E have had poor results even though they were stimulated at an intensity similar to the wells in T9S-T23E. This could indicate poorer sand quality. Offsetting that concern over the Thurston leasehold is the fact that two of the existing Thurston wells (with less intensive stimulations) exhibit cumulative recoveries comparable to the high end of the range of results for T9S-R23E and comparable to the lower end of the range for T10S-R23E which suggests similar pay quality. Given that 1) the Halliburton log analysis has described similar amounts of pay using industry accepted cut-offs and 2) that cumulative production from some of the existing Thurston wells places them favorably in the distributions of the offset areas, it appears reasonable to use the results from T10S-R23E as an analog to describe the potential for development of the Thurston leases.

LEASEHOLD POTENTIAL

Analysis of production, completion and stimulation data in nearby areas and over the Thurston leasehold indicates that the wells evaluated in T10S-R23E should be analogous to the Thurston acreage in 9S-24E. Our comparison shows a correlation of increased EUR with increased stimulation intensity, suggesting that a sand concentration in the range of 15,000 pounds per foot of pay perforated is necessary to obtain the objective results. The analog wells have an average EUR of 1.0 Bcf per well, which generates attractive profitability at current prices and development costs. The Thurston leasehold is judged to have the potential to exhibit similar results.

POTENTIAL DEVELOPMENT ECONOMICS

Cash flow summaries are presented for three development cases that utilize three different well density plans: 80 acre spacing, 40 acre spacing and 20 acre spacing. The effective drainage area is unknown at the present time. For the purpose of this analysis, reserves of 1.0 Bcf per well are assigned to all locations regardless of well spacing. Initial development is scheduled to begin with completion of the Wasatch and Mesa Verde in the newly drilled Thurston 22-27X. Re-perforation and re-stimulation of the existing wells will then follow. After completion of the Thurston 22-27X well, the drilling of new development wells is scheduled for each well spacing case. **Attachments 7, 8** and **9** show the estimated drilling schedules for the three development cases utilizing 80 acre, 40 acre, and 20 acre well density respectively. **Attachments 10, 11** and **12** show the cash flow summaries for the drilling schedules shown in **Attachments 7, 8** and **9** respectively. These economics assume a working interest of 100% and a lease net revenue interest of 80% and a completed well cost of $1,360M. Wellhead product prices used in all cases are $6.00/Mcf for gas and $55.00/bbl for condensate. Condensate yield is scheduled at 15 Bbl/MMcf, and operating costs are scheduled at $1,500 per well per month. **Attachment 13** is a summary of profit indicators for the three cases.

OTHER ACTIVITY IN THIS TREND

Exxon-Mobil recently announced plans for large scale development of the Mesa Verde formation in the Piceance Basin in Rio Blanco County, Colorado; approximately 50 miles east of the study area. A central point of their plan is their belief that improved technology will allow them to accelerate and increase recoveries compared to completions that were made

previously. **Attachment 14** is an exhibit from an Exxon presentation to analysts in March 2006. Although this is not a direct analog to the Thurston project (different basin, deeper wells, etc), the parallels are the targeted formation is Mesa Verde and the operator expects to improve on past results in that area.

Technical information necessary for this review was furnished by Thurston or was obtained from state regulatory agencies and commercially available data sources. No special tests were obtained to assist in the preparation of this letter.

As in all aspects of oil and gas evaluation, there are uncertainties inherent in the interpretation of engineering and geological data; therefore, our conclusions represent informed professional judgments only, not statements of fact.

This letter is solely for the use of Thurston, its agents, and its representatives in their evaluation of this potential investment and is not to be used, circulated, quoted, or otherwise referenced for any other purpose without the express written consent of the undersigned except as required by law. Persons other than those to whom this report is addressed or those authorized by the addressee shall not be entitled to rely upon the report unless it is accompanied by such consent.

We are independent petroleum engineers, geologists, and geophysicists; we do not own an interest in these properties and are not employed on a contingent basis. Data pertinent to this letter are maintained on file in our office.

Very truly yours,

LaRoche Petroleum Consultants, Ltd.

Stephen Daniel
Licensed Professional Engineer
State of Texas No. 58581

SWD;mc
06-005

THURSTON ENERGY LLC

Background and Informational Sheet

June 2007

PROJECT OVERVIEW:

Location:	NE Utah - Uinta Basin – T9S, R24E; Uintah County, Utah 40 miles east of Vernal, Utah on State Hwy. 45 at Bonanza, Utah
Field:	Greater Natural Buttes Gas Field
Type of Play:	Conventional Natural Gas Resource Play- Tight Gas
Target Geologic Zones:	Wasatch (approx. 4,000ft. to 6,000 ft.) and Mesa Verde (approx. 6,000ft to 8,100 ft.)
Lease Owner of Record:	Thurston Energy LLC.
Operator:	Thurston Energy Operating Company LLC., a wholly owned subsidiary of Thurston Energy LLC
Total Acres:	3692 acres more or less

GEOLOGIC OVERVIEW:

Regional setting:	Southeast flank of the Uinta Basin
Target producing formations:	1. Eocene and Paleocene Wasatch formation (upper and lower) 2. Cretaceous Mesa Verde formation (upper and lower)
Type of Trap: Stratigraphic and Structural influenced	Basin Centered Gas
Spacing:	Drainage area is between 20 and 40 acres (currently being evaluated by drilling on 20 acre spacing; EOG, Anadarko)
Geometry of Reservoir Rock:	Lenticular fluvial channel and point bar sandstones. Individual sandstones vary from less than one section in area to over eight sections. Individual sands vary in net pay thickness from 5 to 150 ft. The number of individual sand sequences can vary in each bore hole. (Average 52 sand sequences per bore hole at a depth to 8,500 ft.
Fractures:	There is evidence of natural fracturing in both the Wasatch and Mesa Verde Source: Cores and Halliburton Fracture Imaging Log (22-27X) This natural fracturing could have been created and or influenced by the same geologic event that created the large Gilsonite veins in the immediate area of this project.
Porosity:	8% to 18% (Average 12%)
Permeability:	less than .1 md (Tight gas sand)
Water Saturation:	45% to 50%
Gas/oil ratio:	15 Bbl/MMcf

BTU:	Average-1,114BTU
Drilling success:	90%+ in the Uinta Basin (Source BLM)
Estimated Cost to drill and complete:	$1,500,000.00 depending on cost of stimulation
Estimated primary recovery:	1 BCF per location with stimulation* (LaRoche Petroleum Consultants LLC. Engineering Report dated April 21, 2006) ---The Thurston Energy 22-27X has 129 sand sequences defined as "pay zones") *With the introduction of new stimulation technology, the experience of Exxon and others is that the recovery factors are expected to increase exponentially (2Bcf +). See Exxon Mobil Slide
Conclusion:	Historical EURs are not representative of the recoverable reserves for the play. This is due in part from the poor pipeline infrastructure and take away capacity, curtailment and poor completion technology. The historical data show a mean of 800 MMcf (.8 Bcf) per well (LaRoche). The estimated 1MMcf to 2 MMcf (Bcf) ultimate recovery (EUR) per location in the newer wells is largely due to improved permeability in the shallower depths, identifying and exploiting the existing fracturing and of course, improved completion and stimulation practices. There is a correspondence between gas in place and recoverable reserves. Therefore we conclude that reserves should be based on estimates of gas in place and estimated permeability rather than historical EUR.
Example:	Dirty Devil 22-27X well (Source Halliburton Swift-LOOK well model)
Original Gas in Place (OGIP) =	4.29 Bcf
Total number of productive zones: 1)	29 zones (Formula: less than 50% water saturation and above 9% porosity
Total number of net feet of potential gas pay:	296.50 ft.--- ---Enduring Resources and others predict that for every 65 ft. of net pay in a well, it will create a value of 750MMcf or .75Bcf (¾) ie. 65 ft of net pay equals .75 (¾) Bcf of recoverable gas.

EXISTING ASSETS OF THURSTON PROJECT

Acreage:	3692 Acres- Our leases have a 75% NRI and are held by production (HBP) therefore do not have a term. Thurston leases have a lower NRI but do not have a termination date.
Drilling Permits:	10 Drilling Permits 6 Permits on BLM leases are approved and ready to go 4 Permits on State leases are in the final stage of approval. Final approval anticipated within 60 days.
Wells	
22-27X -	$1,500,000.00 – Replacement Cost Drilled and logged to a depth of 9,004 feet in February 2006. Awaiting Completion _____Halliburton has logged the well and provided a reservoir revue using their Swift LOOK interactive reservoir analysis tool providing the following guidance for the Wasatch and Mesa Verde only. _____296 feet of Net Gas Pay _____4.29 BCF gas in place _____2.7 BCF (±) of Estimated Recoverable Gas _____Halliburton did not evaluate the lower zones that appear productive on the logs (the Sego and the Black Hawk). Thurston plans to test and evaluate each of these zones in the completion of the 22-27X. If the Sego and or the Black Hawk were successfully completed they could contribute an additional 1 to 2+ BCF per zone to the cumulative production of each well and location on the lease block.
Other Well Assets	Six existing wells capable of production with equipment – Please see attached Exhibit regarding Well Status
Gas Taps:	2 @ $200,000.00 = $400,000.00
Gathering System:	9 miles of pipe, right of way and equipment - $2,000,000.00
Roads and Right of Ways	Right of ways etc. Permitted and Constructed

According to Petrie Parkman/ Merrill Lynch the average value of gas in the ground in a Proven category is $2.90 per Mcf. (See table of transactions in 2006 and 2007 provided by Petrie Parkman/ Merrill Lynch.

Therefore, in addition to the value of the hard assets above: 184 Bcf (1 Bcf per 20 acres) @ $2.00 per Mcf proven (PDP and PUD) = $368,000,000.00 and

Lease acreage: 3692 acres @ $2,000.00 per acre= $7,300,000.00

Existing Assets and Infrastructure

A. Production Equipment:

Existing production equipment for each well on site at each well location including but not limited to:

1. Well heads
2. Tank Batteries (Heated where applicable)
3. Pump Jack (where applicable)
4. Separators, Dehydrators, Heaters (where applicable)
5. Digital metering on each well
6. Flow lines, valves and connections

B. Gas Taps:

2 into separate locations at the Questar 16 inch low pressure line

C. Gathering System:

9 miles of pipeline that connects to all of the existing wells with the exception of the 31-15A. This connection has been waiting on an approval of Right of Way. This approval is expected to be granted within 30 days. This gathering system is structured to carry "Third Party" gas for a fee.

Gathering System Right of Way for new permitted wells (normally there is an average of 1 year lead time to obtain permits for Right of Way)

D. All weather lease roads and right of way for existing and future roads to permitted wells

(Normally there is a 1 year lead time to obtain permits for lease road permits)

E. Access to Pipelines and Gas Plant:

Questar 16 inch low pressure line (250 lb.)

Anadarko Midstream low pressure (200 lb. line) in October 2007. This option opens up a new market to additional end users therefore HIGHER prices.

F. Drilling Permits: Ten

Six Approved on US/BLM leases

Four in final approval status on State of Utah leases.

Expected approval in 30 days.

G. All oilfield services and service providers are located within 35 miles either in Vernal, UT or Rangely, CO.

Direct access from State Hwy 45

Estimated Value of Thurston Project

Lease acreage: 3692 acres	$2,000.00 per acre= $7,300,000.00 (BLM and State leases have sold at public auction in our Township and Range (9S-24E) for between $2,000,000 and $3,000.00 per acre. There are no leases available at this time for sale)
Six existing wells capable of production with equipment	6 @$500,000.00 = $3,000,000.00 (Replacement value of 6 existing wells noted above @$1,000,000.00 = $6,000,000.00)
Gas Taps:	2 @ $200,000.00 = $400,000.00
Roads, Right of ways etc.	$1,000.000.00
Gathering System:	9 miles of pipe, right of way and equipment - $2,000,000.00
184 Bcf (1 Bcf per 20 acres)	$2.00 per Mcf proven (PDP and PUD) = $368,000,000.00 According to Petrie Parkman/ Merrill Lynch the average value of gas in the ground in a Proven category is $2.90 per Mcf. (See table of transactions in 2006 and 2007 provided by Petrie Parkman/ Merrill Lynch)

Thurston Energy LLC
Well Status
As of June 20,2007

WELL NAME API Well NUMBERS LEASE NUMBERS	SPUD DATE	TOTAL DEPTH	CUMULATIVE PRODUCTION	CURRENT STATUS
Thurston Devils Playground 23-17 43-047-305680000 UTU-31266	Dec. 1980	8,450 ft.	32074 prior to shut in	Shut in Waiting on Recompletion and stimulation Most recent production in 2005 1,500,000 Mcf per month out of perfs in upper Mesa Verde only. Multiple prospective pay zones identified on logs to be tested SICP 2780 lbs.
Thurston DIRTY DEVIL 11-29 43-047-31617 ML 22161	April 1985\	7,355 ft	47327 Mcf gas 2,315 bbls oil all production from Mesa Verde	Shut in Waiting on Pump Change and stimulation Multiple prospective pay zones identified on logs to be tested
Thurston DIRTY DEVIL 31-15A 43-047-31726 ML 28042	Aug. 1986	7496 ft.	15562 Mcf gas all zones 598 bbls oil all zones Production is from Green River, Wasatch & Mesa Verde	Shut in waiting on pipeline connection Multiple prospective pay zones identified on logs to be tested Potential pay zones are to numerous to enumerate here LOGS and additional information are available upon request
Thurston DIRTY DEVIL Federal 23-20 43-047-31009 UTU 31266	Jan.1987	8382 ft	10062 Mcf gas all zones 592 bbls oil all zones Production is from Wasatch and Mesa Verde	This well is waiting on evaluation and determination of procedure Water production in this well is a challenge This well has produced and will produce large volumes of water. The produced water in this well is a challenge and an obstacle There are multiple prospective pay zones identified on logs to be tested. The water zone needs to be identified and "squeezed" in order for this well to be profiable. Shut in casing pressure 2980lbs.
Thurston RED WASH Federal 1-18 43-047-30124 U 145459	Aug. 1972	8598 ft	682749 Mcf gas Wasatch only 1,164 Bbls oil Wasatch	Shut in waiting on recompletion This well may only require an "acid job" to be productive and profitable This well has in excess of 25 potentially prospective pay zones in both the Wasatch and Mesa Verde identified on the log interpretation by Halliburton
Thurston Devils Playground 41-9 43-047-30339 U5217		6466 ft	511201 gas W#asatch only 2547 oil Wasatch only	Shut in waiting on evaluation. This well has mechanical problems. A new production approach may be necessary. This well may be a Disposal well candidate if further evaluation determines this is the option of choice.There is a drilling permit that offsets this location.
Thurston DIRTY DEVIL 22-27X 43-047-34825 SL 0717200C	Feb. 2006	9004 ft.	Shut in Waiting on Completiojn	It is drilled, logged, cased and has production equipment set and gathering line in place. This well was tested in the upper Mancos shale only. It flowed water in the 2 zones tested According to Halliburton this well has 296 feet of potential gas pay in the Wasatch and Mesa Verde only. There are identified zones below the traditional Mesa Verde interval that appear to be productive. They are the Black Hawk and Sego. This well is expected to produce in excess of 2.5 Bcf of gas with the proper stimulation. there are 2 dapproved drillinmg permits directly offsetting this well. There are an estimated 129 sand sequences in this well capable of gas production

History:
Thurston Energy LLC drilled the 22-27X well on the same drill pad that the previously drilled 22-27 well was drilled in 1984 by HIKO BELL the previous owner operator.

A major gas sand was encountered in the drilling of the 22-27 at a depth of 4,368 ft. the gas flow passing through the gas buster gauged at 2.4 MMcf. Seven (7) feet of the sand was drilled prior to drilling being halted. A mini "Blowout" had occurred.A production string was run to the top of the sand at 4,358 ft.with a short joint on the bottom of the casing and a Texas Pattern cementing shoe on the end. The net affect of this paniced completion attempt was that cement was dumped on the gas sand, effectively partially shutting it off. After cementing and waiting 24 hours, the gas sands encountered from 3822 to 4,292 were perforated. The well produced 101,000,000 cubic ft of gas until 1987 when the pipeline was shut in for repairs(Force Majeure). In the following year when the pipeline was reopened the well would not produce. It was found that the cement job had failed and fresh water was entering the well from above the producing intervals.
All of this could have been avoided with the use of better choices in drilling and completion procedures.

Example: An attempt should have been made to drill thru the entire sand sequence plus "rat hole". Production casing then could have been run through the entire sand section. This would have allowed for the entire sand section to be "behind pipe". Cementing would have been relatively simple and effective. This would have sealed and protected the gas producing sand from any water incursion. The 22-27X well has the same sand sequence that was productive in the original 22-27 well.

EXHIBIT

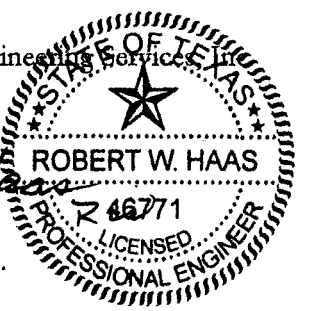
Lease Descriptions

1. State of Utah Mineral Lease No. 22161 containing 320 acres more or less
2. State of Utah Mineral Lease No. 28042 containing 616.59 acres more or less
3. United States – BLM Lease No. UTU- 0145459 containing
   640 acres more or less
4. United States – BLM Lease No. UTU- 31266 containing
   1594.20 acres more or less
5. United States- BLM Lease No. SL 0717250 containing
   400 acres more or less

APPRAISAL OF CERTAIN
OIL AND GAS PROPERTIES
LOCATED IN
UINTAH COUNTY, UTAH, USA
AS OF JANUARY 1, 2008

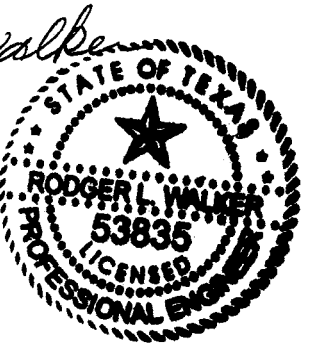
PREPARED FOR
CHINA OIL & GAS GROUP, LIMITED

Haas Petroleum Engineering Services Inc.



Robert W. Haas, P.E.

Rodger L. Walker, P.E.
January 26, 2008



HAAS PETROLEUM ENGINEERING
SERVICES, INC.

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PHONE (214) 754-7090
FAX (214) 754-7092

January 26, 2008

Mr. Xu Tie Liang, Chairman
China Oil & Gas Group, Limited
Suite 2805, 28th Floor – Sino Plaza
255-257 Gloucester Road
Causeway Bay, Hong Kong

Dear Mr. Xu:

As requested, a study of the natural gas reserve potential associated with the Thurston Energy, LLC – Phase I and Phase II projects (hereinafter referred to as "Thurston" projects) located in the Uinta Basin, Utah, USA. The Thurston prospect acreage is in the Dirty Devil gas field on the east side of the Natural Buttes gas field in Township 9 South – Range 24 East, Uintah County, Utah. This study reviewed the following reference material and data:

1. Defining and Characterizing Mesaverde and Mancos Sandstone Reservoirs based on Interpretation of Image Logs, Eastern Uinta Basin;
2. Shale Gas Resources of Utah: Assessment of Previously Undeveloped Gas Discoveries;
3. Integrated Sequence Stratigraphic and Geochemical Resource Characterization of the Lower Mancos Shale, Uinta Basin, Utah;
4. Completion and Production Data from the Utah Division of Oil, Gas and Mining;
5. Geologic cross sections developed by McPherson Geologic Consulting; and
6. Halliburton's SwiftLook Multi-Stage Gas Well Model on Seven Wells

The methodology for this study was to define a study area that included the eight townships that are contiguous to the project township. Geology and logs were studied to develop an understanding reservoir quality, thickness, and aerial extent. Completion techniques were documented and studied. Halliburton's fracture stimulation and reserve model was reviewed. Production trends were analyzed to confirm the reserve model.

GEOLOGY and LOGS

Reference item Number 1, provided an excellent description of the reservoir characteristics for the Upper Cretaceous Mancos and Mesaverde formations. Questar, Kerr McGee, and EOG Resources provided 10 Formation Micro-imager logs (hereinafter referred to as "FMI" logs; FMI is a registered trademark of Schulumberger Logging Services) for a research study for the Utah Geological Study. These logs were in the area of T9S, R23E, Uintah County,

Utah. Figure No. 1 provides an overview of some of the facts presented in this study by zone.

FIGURE #1

Thurston Energy, LLC Project
Uintah County, Utah

Zone	Thickness (Feet)	Lithology	Rock Properties	Comments:
Upper Mesaverde	450 - 550	5 to 7 Braided Streams 15-50' thick 2 to 3		
Middle Mesaverde (U. Fluvial)	500 - 600	5 to 12 Flood Plain Shales - Sparse Blocky Sandstones	k = .0485 md 3 - 14' Thick 99 - 815 foot wide Channels φ = 14 R_t = 10 Ω wet No X over φ = 10% R_t = 40 Ω	Fractures are generally oriented N 80° W dipping at 70°. Gas entered the wellbores irregularly and "regurgitated gas" was documented.
Middle Mesaverde (Braided St)	300	Thick Blocky Sandstones - Braided Streams		
Middle Mesaverde (L. Fluvial)	140	2 - 5 Fining Upward Fluvials		
Lower Mesaverde (U. Coral)	350	10 - 20 Coalbeds 1' to 4' thick	φ = (8 - 10%) 15% max	
Lower Mesaverde (Nelson)	300	4 - 10 Fluvial and Channel Sandstones less than 15'	φ = 10% R_t = 30 Ω φ = 6 - 11%	
Lower Mesaverde (Nelson)	100	Coal Bearing Shales	φ <= 13% vs Core 9.1% 0.0137 md	
Lower Mesaverde (U. Sego)	50 - 80	Lagoonal washover Sandstones		
Lower Mesaverde (Blockey Sego)	60 - 90	Shoreline Sandstones (wet)	10% φ K = .1 md	
Lower Mesaverde (Black Tongue Shale)	10 - 60	Shale	Low resistance - Poor TOC and Thermal Mat.	
Lower Mesaverde (Castlegate)	100	Shallow Marine & Braided Streams (wet)		
Mancos (Blackhawk)			φ = 5 - 10% R_t = 50 Ω X over	Naturally fractured.
Mancos (Mancos)		Gray to Black Shale		
Mancos (Mancos) B		Thin Very Fine Sandstones encased in Shale (turbidities)		

The study separated the Mesaverde into 9 zones. These zones included various sandstones such as braided streams, fluvial channels, blocky channels, and lagoon washovers. Thin coal beds were also present along with various shales. This study set a minimum sandstone thickness of 4 feet for reviewing. The different types of sandstones ranged from the study minimum 4 feet to 50 feet thick. Porosities ranged from 5% to 14%. Permeabilities ranged from .0137 md. to .1 md. Deep resistivities ranged from 10 ohms to over 50 ohms. Fractures are generally oriented N80W and dipping at 70 degrees. Gas was found to enter the wellbore from irregular directions. The situation of "regurgitated gas" entry was also observed. "Regurgitated gas" is gas that came from the drilling mud that invaded a wet and permeable sand.

The study separated the Mancos into three zones. The FMI logs encountered shallow to deeper marine shales. The Mancos B member was found to include thin, very fine turbidite sandstones. Gas entry was documented in the Mancos section.

COMPLETIONS

The State of Utah requires the oil and gas well operators to file a completion report with certain information documented on the form. The State of Utah also requires that the monthly production volumes be reported for each well. Figure No. 2 presents a summary of some of the important information filed with the state in the Thurston project area by the offset operators.

FIGURE #2

Thurston Energy, LLC Project
Uintah County, Utah
9S Range 24E Wells with Completion Reports

Max Gas Production Rate MMCF/MO	API	Operator	Perforated Top Depth	Perforated Bottom Depth	Formation	Notes	Frac Fluid Type	Frac Fluid Volume (bbls)	Sand (M lbs)
3672	43-047-35622	Houston Exploration Co	6293	6533	MV	Stage 1			203
7891	43-047-35691	Houston Exploration Co	6939	6950	MV	Stage 3			140
		Houston Exploration Co	6958	6968	MV	Stage 3			140
		Houston Exploration Co	7011	7022	MV	Stage 3			140
		Houston Exploration Co	7219	7224	MV	Stage 2			78
		Houston Exploration Co	7241	7244	MV	Stage 2			78
		Houston Exploration Co	7254	7261	MV	Stage 2			78
		Houston Exploration Co	7276	7283	MV	Stage 2			78
		Houston Exploration Co	7290	7300	MV	Stage 2			78
		Houston Exploration Co	7473	7478	MV	Stage 1			130
		Houston Exploration Co	7549	7554	MV	Stage 1			130
		Houston Exploration Co	7633	7649	MV	Stage 1			130
		Houston Exploration Co	7710	7719	MV	Stage 1			130
		Houston Exploration Co	7762	7768	MV	Stage 1			130
		Houston Exploration Co	7778	7781	MV	Stage 1			130
9589	43-047-35920	Houston Exploration Co	6392	6632	MV	Stage 1			90
		Houston Exploration Co	7066	7400	MV	Stage 2			178
		Houston Exploration Co	7811	7966	MV	Stage 3			142
2941	43-047-35921	Houston Exploration Co	7455	7466	MV	Stage 3			159
		Houston Exploration Co	7471	7474	MV	Stage 3			159
		Houston Exploration Co	7495	7500	MV	Stage 3			159
		Houston Exploration Co	7536	7542	MV	Stage 3			159
		Houston Exploration Co	7580	7588	MV	Stage 3			159
		Houston Exploration Co	7672	7677	MV	Stage 2			100
		Houston Exploration Co	7692	7695	MV	Stage 2			100
		Houston Exploration Co	7712	7714	MV	Stage 2			100
		Houston Exploration Co	7724	7726	MV	Stage 2			100
		Houston Exploration Co	8120	8130	MV	Stage 1			89
		Houston Exploration Co	8148	8153	MV	Stage 1			89
		Houston Exploration Co	8171	8176	MV	Stage 1			89
24294	43-047-35966	Enduring Resources	5049	5050	W	Stage 2			15
		Enduring Resources	5996	7522	MV	Stage 1			222
23508	43-047-35967	Enduring Resources	4720	4721	W	Stage 2			46
		Enduring Resources	6848	7670	MV	Stage 1			154
693	43-047-36019	Enduring Resources	7060	7582	MV	Stage 1			111
5939	43-047-36174	Kerr McGee		7718	MV	Stage 1	Slick Water	1231	40
		Kerr McGee	7173	7377	MV	Stage 2	Slick Water	1258	46
		Kerr McGee	6982	7024	MV	Stage 3	Slick Water	1260	46
12254	43-047-36175	Kerr McGee		7839	MV	Stage 1	Gel (20)	953	100
		Kerr McGee	7345	7443	MV	Stage 2	Gel (20)	1384	180
		Kerr McGee	7049	7224	MV	Stage 3	Gel (18)	2223	262
		Kerr McGee	6876	6881	MV	Stage 4	Gel (18)	457	49
12620	43-047-36179	Kerr McGee	7605	7642	MV	Stage 1	Slick Water	632	27
		Kerr McGee	7421	7431	MV	Stage 2	Slick Water	758	25
		Kerr McGee	7293	7297	MV	Stage 3	Slick Water	369	9
		Kerr McGee	7041	7193	MV	Stage 4	Slick Water	2709	100
		Kerr McGee	6764	6768	MV	Stage 5	Slick Water	410	23
28288	43-047-36180	Kerr McGee		7670	MV	Stage 1	Gel (20)	1717	201
		Kerr McGee	7132	7284	MV	Stage 2	Gel (20)	4155	576
		Kerr McGee	6690	6918	MV	Stage 3	Gel (18)	834	100
		Kerr McGee	6344	6348	MV	Stage 4	Gel (18)	416	45
34019	43-047-36291	Kerr McGee	7584	7752	MV	Stage 1	Slick Water	1155	35
		Kerr McGee	7171	7425	MV	Stage 2	Slick Water	848	14
		Kerr McGee	6866	7026	MV	Stage 3	Slick Water	1892	71
		Kerr McGee	6666	6735	MV	Stage 4	Slick Water	1024	36
		Kerr McGee	5738	5850	W	Stage 5	Slick Water	1302	47
15233	43-047-36734	Enduring Resources	6816	6817	MV	Stage 1			207
		Enduring Resources	7058	7059	MV	Stage 1			207
		Enduring Resources	7412	7413	MV	Stage 1			207
		Enduring Resources	7539	7540	MV	Stage 1			207
20903	43-047-36735	Enduring Resources	5244	5245	W	Stage 2			46
			5930	7648	MV	Stage 1			273

The first column in Figure No. 2 is the maximum monthly production rate a well ever produced. This rate provides an indicator from which each well can be compared to the other wells in the area to gauge a wells relative success. Assuming the operator delivered the designed stimulation effectively, a strong maximum rate indicates good reservoir quality and a good stimulation. The data in Figure No. 2 displays data filed for wells completed after January 1, 2004. It was assumed that the more recent completions would have more modern stimulation designs. Other columns in Figure No. 2 indicate how each well was perforated, the number of stages, the fluid types (only Kerr McGee reported fluid information), fluid volumes, sand volume, and sand quality. This information reports that only 4 feet of Wasatch was completed in these wells. Enduring Resources fracture stimulated the Mesaverde with only 1 stage and averaged about 200 M lbs. of sand. Houston Exploration fracture stimulated the Mesaverde in 3 stages and averaged about 370 M lbs. of sand per well. Kerr McGee fracture stimulated the Mesaverde with 3 to 5 stages and used both Gel and Slick Water stimulations. The fluid volumes ranged from 3749 bbls to 7122 bbls. The sand volumes ranged from 44,000 pounds to 922,000 pounds. Since two of the operators did not report fluid types or volumes, statistical type conclusions can not be made from this data set. The best well in this group was Kerr McGee's API No. 42-047-36291. This well was stimulated with a slick water fracture treatment that generally used relatively small amounts of 30/50 mesh sand and 6221 bbls of fluid.

RESERVES

The results of Halliburton's "SwiftLook Multi-Stage Gas Well Model" on seven wells associated with the Thurston project are shown in Figure No. 3.

FIGURE # 3

LOG AND RESERVE DATA
Thurston Energy, LLC Project - Uintah County, Utah

Well No.	Gross Pay (FT)	Net Pay (FT)	Porosity Dec.	SW Dec	Acres	OGIP/AC MMCF	OGIP MMCF	OGIP MCF/AC-FT	# of Zones*	Stages #	Qi MCFD
DD 1-18	671	315	0.11	0.38	20	163	3,270	517	45 / 93	11	876
DD 1-29	431	249	0.11	0.41	20	112	2,240	450	25 / 26	8	751-938
DD 22X-27	732	357	0.11	0.36	20	222	4,440	622	26 / 57	7	1211-1513
DD 23-17	489	262	0.10	0.38	20	143	2,860	546	32 / 65	8	1069
DD 23-20	360	275	0.09	0.45	20	115	2,300	418	24 / 26	5	1166
DD 31-15A	838	420	0.11	0.44	20	197	3,940	469	40 / 83	9	881
DD 41-9	603	296	0.11	0.44	20	137	2,730	463	29 / 61	8	618
Average	589	311	0.11	0.41	20	156	3111	498	32 / 59	8	922

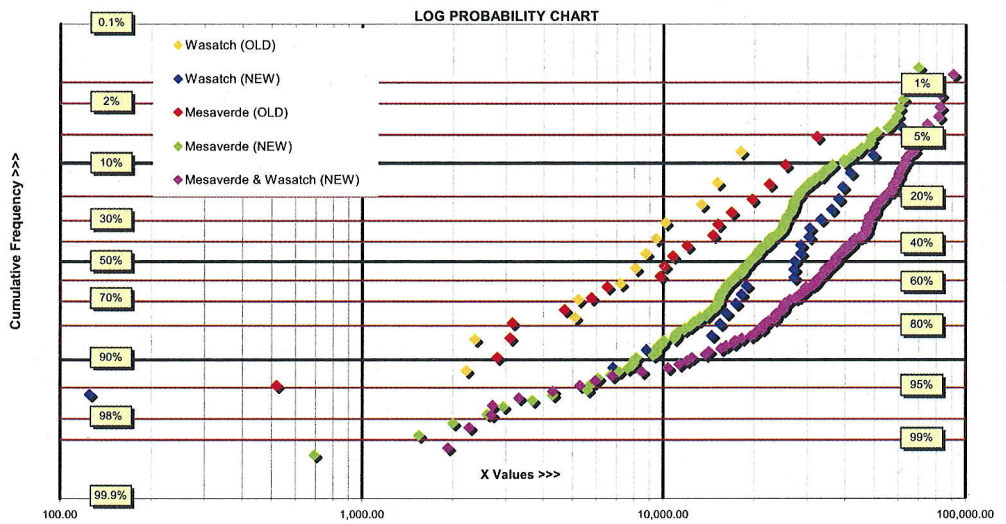
Notes: * 45/93 translates as 45 zones for completion out of 93 identified.
Gradient = .43
GG = .65
Cond. = 1-BBL/MM

Halliburton determined the average Original Gas in Place ("OGIP") for a 20 acre development pattern is 3111 MMcf. The average net pay is 311 feet in an average of 32 zones. Halliburton recommends 5 to 11 stage fracs for an average of 8 stages. The fluid volumes for the DD 2X–27 stimulation are 63,000 BBL and the sand volumes are 2.6

million pounds. These stimulations will develop an estimated average initial production rate of 922 MCFD. The initial rates range from 618 MCFD to 1513 MCFD.

Production data from the State of Utah was culled for all the wells in the study area. The data was divided by vintage into a group of older wells that had their date of first production before January 1, 2003 (hereinafter referred to as "OLD") and a group whose date of first production was after January 1, 2003 (hereinafter referred to as "NEW"). Each of these groups was then categorized by producing formation as reported to the State of Utah. The three formation categories are Wasatch, Mesaverde, and commingled Wasatch and Mesaverde. The Log Probability Chart in Figure No. 4 presents the maximum production rate data for each well in these data groups.

FIGURE #4

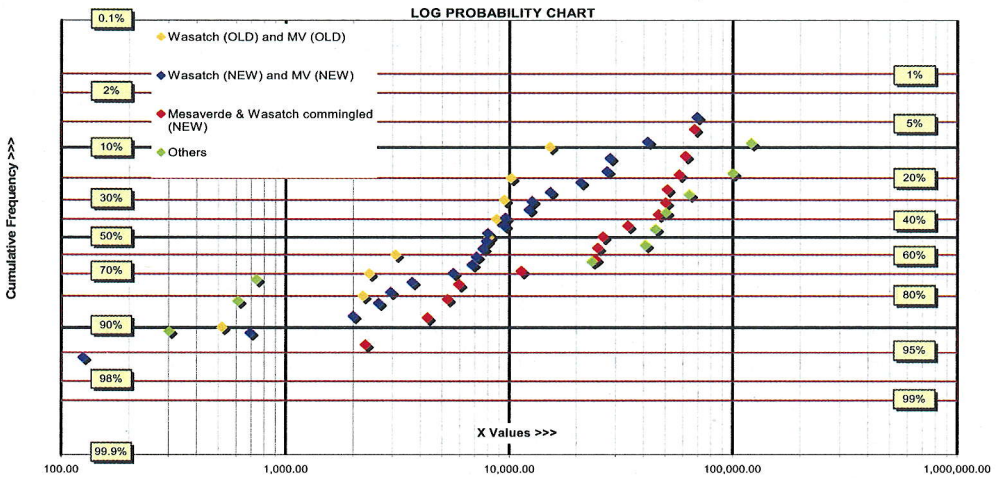


The cumulative frequency at 50% shows the OLD Wasatch wells have a producing rate of approximately 8,500 Mcf/Month versus the NEW Wasatch producing rate of 28,000 Mcf/Month. This implies that better completion techniques are improving the performance of these wells. Similarly, the cumulative frequency at 50% shows the OLD Mesaverde wells have a producing rate of approximately 10,000 Mcf/Month versus the NEW Mesaverde producing rate of 20,000 Mcf/Month; also implying that better completion techniques are improving results. The commingled Wasatch and Mesaverde NEW wells have a combined producing rate of 38,000 Mcf/Month. If the average producing rate for the Wasatch New completions is added to the Mesaverde New completions, the total is 48,000 Mcf/Month. A detailed evaluation of the logs and completion techniques would be required to define the exact causes for this difference between the expected commingled rate of 48,000 Mcf/Month and the actual commingled rate of 38,000 Mcf/Month. In the absence of such a study, it is reasonable to assume that at least part of the difference is due to the fact that commingled stimulation designs will be less efficient and provide lower rates. This would be due to the large size of the section being completed.

Figure No. 5 presents the same type of maximum production rate data as in Figure No. 4, but only Township 9S and Range 23 East data is displayed. Since there were fewer data points, the groupings are a little different. The data shown in yellow are the Wasatch OLD

and Mesaverde OLD completions as one group. The blue are the Wasatch NEW and the Mesaverde NEW as one group. The red data are the commingled Wasatch and Mesaverde NEW. The green data represents other completions that were reported to the state of Utah without formation names or with descriptions that were unclear.

FIGURE #5



Once again the Old completions under performed the NEW completions. The Wasatch and Mesaverde NEW commingled wells average 26,000 Mcf/Month. This exceeds the expected value of 15,000 Mcf/month. The expected rate was calculated by adding 7,500 Mcf/month for a Wasatch New plus 7,500 Mcf/Month for a Mesaverde NEW. The stray green data points also have a high cumulative frequency value at 50%, exceeding 40,000 Mcf/Month.

Figure Nos. 6, 7, and 8 capture all the production data on the NEW wells included in Figure No. 4. The wells in Figure No. 4 are all the wells in the Thurston Study area. These NEW wells were sorted into three graphs by completion zone. Figure No. 6 has all the NEW wells completed in the Wasatch. Figure No. 7 has all the NEW wells completed in the Mesaverde. Figure No. 8 has all the NEW wells commingled in the Wasatch and the Mesaverde.

FIGURE #6

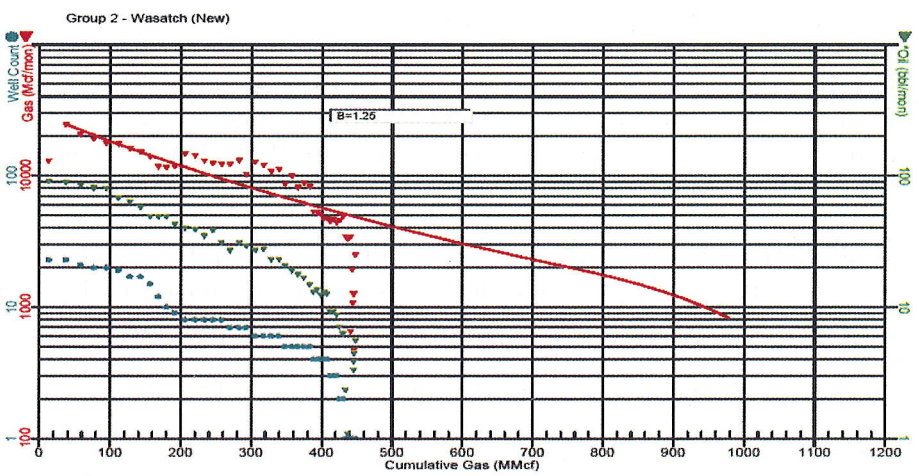


FIGURE #7

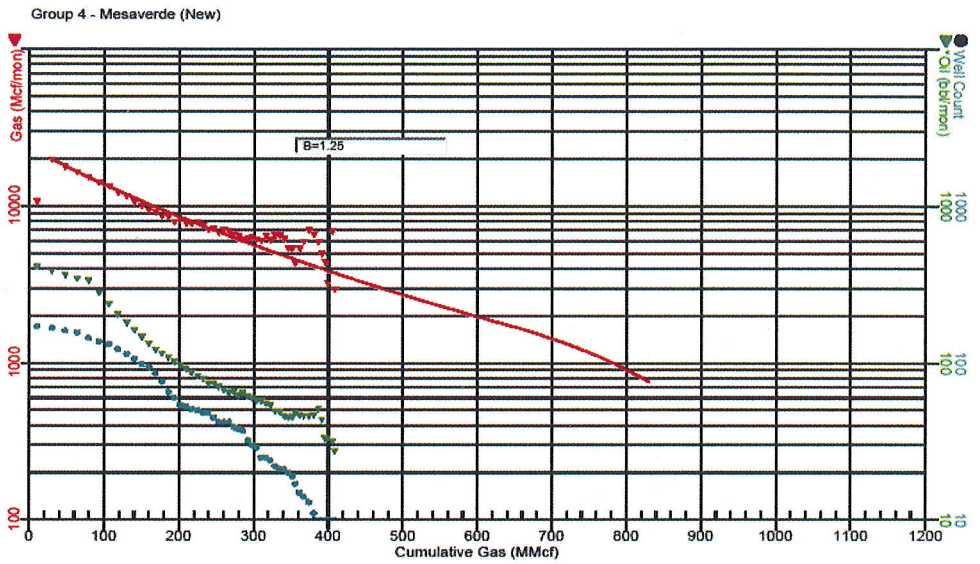
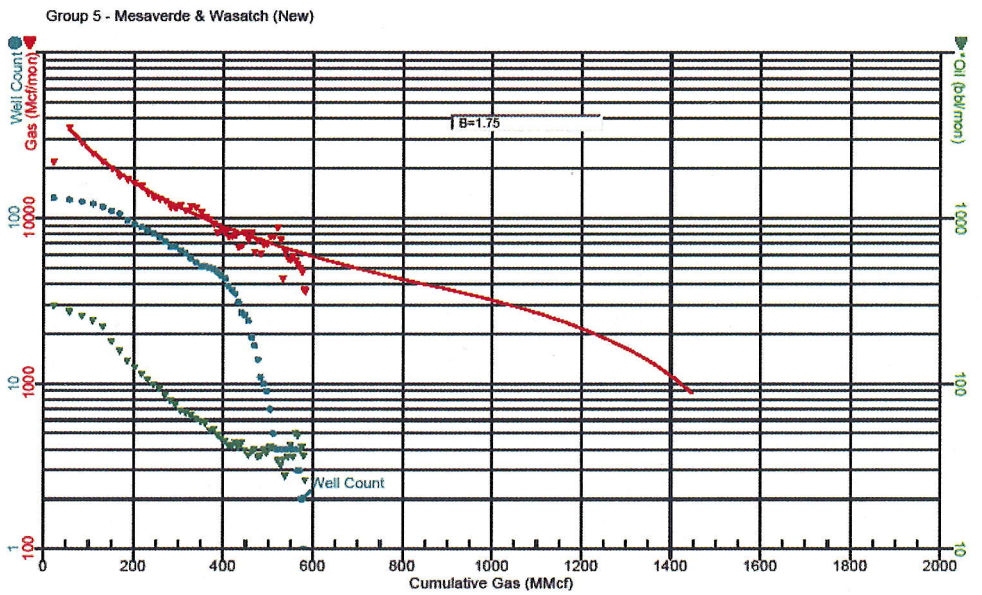


FIGURE #8



The monthly production data in these graphs have been normalized and averaged. The normalization converts the date of first production, for all wells, to the same date of first production. The sum of the production rates for all wells, by month, is divided by the number of wells to get the groups average normalized production rate. From the graph of production rate versus cumulative production volumes, a forecast is constructed that represents a type curve for the group of wells. The results of the forecasts are shown in Figure No. 9.

FIGURE #9

Thurston Energy, LLC Project Unitah County, Utah Type Curve Analysis by Completion Zone NEW Wells in Townships Adjacent to Township 95 Range 23E			
Curve Parameters	**Wasatch**	**Mesaverde**	**Commingled Wasatch**
B	1.25	1.25	1.75
Decline Initial (%)	76.7%	72.6%	94.2%
Gas Rate Initial (Mcf/Month)	24,730	19,670	34,640
Gas Rate Fired (Mcf/Month)	750	750	750
Estimated Ultimate Recovery (MCF	979,000	843,000	1,448,000

MANCOS SHALE and DAKOTA DEVELOPMENT

A limited number of wells in the regional vicinity of the Thurston acreage have targeted the Mancos Shale as an individual production zone. Of these, only recently completed wells, which would have used current slick-water frac technology, were chosen to review. From this list, the majority of the development activity occurred in 2002 and 2003. Wells since that time have tended to commingle production with other zones, inhibiting selective evaluation of the Mancos.

A 2006 report conducted for the Utah Department of Natural Resources, in part, evaluated the reservoir potential of the Mancos Shale. Geo-chemical data shows a Vitrinite reflectance (Ro) of approximately 0.65% near the Thurston acreage, increasing to 1.50% towards the west (Monument Butte area). This lower thermal maturity shows the reservoir being more oil-prone around the Thurston acreage verses more gas-prone to the west. A review of Mancos offsets in the area is shown in the table below. Potential recoveries from these wells show generally increasing liquids recovery on the east side of the review area. Several of the wells have apparently been re-fraced, with subsequent rates approaching the original maximum production rate.

FIGURE #10

Mancos Completions						
Case Name	**Status**	**S/T/R**	**FP**	**EUR**		**Max Rate**
				BCF	**MBO**	**MMCF/MO**
BONANZA 10-3	P	10/10S/23E	11/03	0.8	8.9	31.6
BONANZA 15-27	SI	27/10S/25E	9/03	0.1	3.4	1.5
BONANZA 4-6	P	4/10S/23E	9/03	0.6	3.8	13.9
CWU 804-18	SI	18/9S/23E	6/03	0.0	0.0	5.0
CWU 810-23	SI	23/9S/22E	3/03	0.6	14.5	11.0
OU SG 10W-15-8-22	SI	15/8S/22E	4/03	0.7	0.0	18.1
PAWWINNEE 3-181	SI	3/9S/21E	4/02	2.7	0.0	33.8
SOUTHMAN CYN 9-24-42-30	P	30/9S/24E	10/06	0.3	6.4	23.5
WEEKS 6-154	SI	8/9S/21E	10/02	2.1	1.4	20.0

Since January 2006, major development activity has occurred for the deeper potential reservoirs in the study area. Of note are Questar Exploration and Production Company's ("Questar") drilling permits. In 2006, they permitted 10 wells deeper than 12,000'. Permits issued in 2007 increased to 55, with the majority targeting the Dakota and other zones down to 17,000'. Production data on these wells is not yet available, but results reported in news releases and investor presentations from Questar are reporting good success in these efforts.

RESERVE SUMMARY

The reserves have been summarized by Phase I and Phase II. Phase I includes the completion of two wells and the drilling of a third well. Phase II is the full development of all Thurston acreage based on two scenarios. The first scenario develops the acreage on 20 acre spacing. The second scenario develops the acreage on 40 acre spacing. As of January 1, 2008, Thurston's net Reserves, future net income ("FNI"), and net present worth discounted at 10 percent per annum ("NPV") have been estimated to be as follows:

TABLE 1

	Net Reserves – As of 01/01/2008			
Reserve Class/Cat	Oil & Condensate (bbl)	Natural Gas (Mcf)	FNI (USD, $)	NPV Disc. @ 10% (USD, $)
PHASE I				
Probable Non-Producing	9,110	2,250,000	12,351,310	6,463,710
Probable Undeveloped	4,100	864,020	3,279,540	1,162,360
Total Probable	**13,210**	**3,114,020**	**15,630,850**	**7,626,070**
PHASE II				
Probable Undeveloped - 20 Acres	745,520	155,750,860	575,349,970	104,884,460
Probable Undeveloped - 40 Acres	377,320	79,476,320	292,794,490	71,086,630

* Totals in Table 1 may not exactly match values in the attached cash flow summaries and tabular summaries due to computer rounding.

FNI is after deducting estimated operating and future development costs, severance and ad valorem taxes, but before Federal income taxes. Total net Probable Reserves are defined as those natural gas and hydrocarbon liquid Reserves to Thurston's interests after deducting all royalties, overriding royalties, and reversionary interests owned by outside parties that become effective upon payout of specified monetary balances. All Reserves estimates have been prepared using standard engineering practices generally accepted by the petroleum industry and conform to guidelines developed and adopted by the Society of Petroleum Engineers ("SPE"), American Association of Petroleum Geologists ("AAPG"), World Petroleum Council ("WPC"), and the Society of Petroleum Evaluation Engineers ("SPEE"). All hydrocarbon liquid Reserves are expressed in United States barrels ("bbl") of 42 gallons. Natural gas Reserves are expressed in thousand standard cubic feet ("Mcf") at the contractual pressure and temperature bases.

RESERVE ESTIMATE METHODOLOGY

The Reserves estimates contained in this report have been prepared using standard engineering practices generally accepted by the petroleum industry. Decline curve analysis was used to estimate the remaining Reserves of the analogy pressure depletion reservoirs with enough historical production data to establish decline trends. Non-producing Reserves were estimated by volumetric analysis, research of analogous reservoirs, or a combination of

both. The maximum remaining Reserves life assigned to wells included in this report is 40 years.

RESERVE CLASSIFICATION

The Reserves estimates included in this report conform to the guidelines specified by the SPE, AAPG, WPC, and SPEE. For more information regarding reserve classification definitions see Appendix A. A complete discussion of the Reserves classification definitions can be found on the SPE website (www.spe.org).

COMMODITY PRICES

Future hydrocarbon revenues were estimated using the New York Mercantile Exchange ("NYMEX") prices outlined in Table 2.

TABLE 2

NYMEX PRICES

Date	Natural Gas ($/MMBtu)	Hydrocarbon Liquids ($/Bbl)
2007	7.87	85.71
2008	7.54	77.24
2009	7.39	75.68
2010	7.28	75.55
Thereafter	7.22	75.69

Since a gas contract has not been executed, it was assumed the gas contract price will be equivalent to the NYMEX price. The average difference between the wellhead price and the NYMEX price represents adjustments for BTU content, shrinkage, marketing, and transportation costs. These adjustments were applied to the NYMEX prices listed in Table 2.

Oil prices reported in the area were indexed to the monthly average of the daily closing prices received at the Cushing, Oklahoma delivery point. The average difference between the wellhead oil price and the NYMEX price represents adjustments for crude quality, marketing fees, and BS&W, transportation costs and purchaser bonuses. These adjustments were applied to the NYMEX prices listed in Table 2.

OPERATING EXPENSES & CAPITAL COSTS

Since operating costs were not available, operating costs were estimated based on knowledge of analogous wells producing under similar conditions. The lease operating expenses in this report represent field level operating costs and include COPAS charges.

Capital costs were estimated using recent historical information reported by Thurston for analogous expenditures. The capital costs provided by the Thurston have been checked for reasonableness. For the purpose of this report, salvage value for each project was assumed to be equal to the abandonment costs.

Operating expenses and capital costs were not escalated in this evaluation.

DISCLAIMERS

All information pertaining to the operating expenses, prices, and the interests of Thurston in the properties appraised has been accepted as represented. It was not considered necessary to make a field examination of the appraised properties. Data used in performing this appraisal were obtained from Thurston, public sources, and our own files. Supporting work papers pertinent to the appraisal are retained in our files and are available to you or designated parties at your convenience.

It was beyond the scope of this HPESI report to evaluate the potential environmental liability costs from the operation and abandonment of these properties. In addition, no evaluation was made to determine the degree of operator compliance with current environmental rules, regulations, and reporting requirements. Therefore, no estimate of the potential economic liability, if any, from environmental concerns is included in the forecasts presented herein.

The Probable Reserves presented in this report are estimates only and should not be construed as being exact quantities. They may or may not be actually recovered; and, if recovered, the revenues therefrom and the actual costs related thereto could be more or less than the estimated amounts. Because of governmental policies and uncertainties of supply and demand, the product prices and the costs incurred in recovering these Reserves may vary from the price and cost assumptions in this report. In any case, quantities of Probable Reserves may increase or decrease as a result of future operations.

Attached are summary tables of economic analysis of predicted future performance. Other tables identify the properties appraised with summary Reserves and the economic factors applicable to each. A list of tables is included.

We appreciate this opportunity to have been of service and hope that this report will fulfill your requirements.

Respectfully submitted,

Haas Petroleum Engineering Services, Inc.

Robert W Haas

Robert W. Haas, P.E.

STATE OF TEXAS
ROBERT W. HAAS
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Rodger L Walker

Rodger L. Walker, P.E.

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RODGER L. WALKER
53635
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PROFESSIONAL ENGINEER

RWH/RLW: uac
Attachments

CHINA OIL & GAS GROUP, LIMITED
LIST OF ECONOMIC TABLES

Appendix

APPENDIX A

In March 2007, the SPE Board approved a new system for defininig hydrocarbon reserves and resources. The updated definitions were developed over two years in coordination with WPC, AAPG, and SPEE. The tables below were taken from the SPE publication titled "Petroleum Resources Management System" and contain the updated reserves definitions and guidelines.

RESERVES STATUS DEFINITIONS AND GUIDELINES

Status	Definition	Guidelines
Developed Reserves	Developed Reserves are expected quantities to be recovered from existing wells and facilities.	Reserves are considered developed only after the necessary equipment has been installed, or when the costs to do so are relatively minor compared to the cost of a well. Where required facilities become unavailable, it may be necessary to reclassify Developed Reserves as Undeveloped. Developed Reserves may be further sub-classified as Producing or Non-Producing.
Developed Producing Reserves	Developed Producing Reserves are expected to be recovered from completion intervals that are open and producing at the time of the estimate.	Improved recovery reserves are considered producing only after the improved recovery project is in operation.
Developed Non-Producing Reserves	Developed Non-Producing Reserves include shut-in and behind-pipe Reserves.	Shut-in Reserves are expected to be recovered from (1) completion intervals which are open at the time of the estimate but which have not yet started producing, (2) wells which were shut-in for market conditions or pipeline connections, or (3) wells not capable of production for mechanical reasons. Behind-pipe Reserves are expected to be recovered from zones in existing wells which will require additional completion work or future re-completion prior to start of production. In all cases, production can be initiated or restored with relatively low expenditure compared to the cost of drilling a new well.
Undeveloped Reserves	Undeveloped Reserves are quantities expected to be recovered through future investments:	(1) from new wells on undrilled acreage in known accumulations, (2) from deepening existing wells to a different (but known) reservoir, (3) from infill wells that will increase recovery, or (4) where a relatively large expenditure (e.g. when compared to the cost of drilling a new well) is required to (a) recomplete an existing well or (b) install production or transportation facilities for primary or improved recovery projects.

RESERVES CATEGORY DEFINITIONS AND GUIDELINES

Category	Definition	Guidelines
Proved Reserves	Proved Reserves are those quantities of petroleum, which by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations.	If deterministic methods are used, the term reasonable certainty is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate. The area of the reservoir considered as Proved includes (1) the area delineated by drilling and defined by fluid contacts, if any, and (2) adjacent undrilled portions of the reservoir that can reasonably be judged as continuous with it and commercially productive on the basis of available geoscience and engineering data. In the absence of data on fluid contacts, Proved quantities in a reservoir are limited by the lowest known hydrocarbon (LKH) as seen in a well penetration unless otherwise indicated by definitive geoscience, engineering, or performance data. Such definitive information may include pressure gradient analysis and seismic indicators. Seismic data alone may not be sufficient to define fluid contacts for Proved reserves (see "2001 Supplemental Guidelines," Chapter 8). Reserves in undeveloped locations may be classified as Proved provided that: 1) The locations are in undrilled areas of the reservoir that can be judged with reasonable certainty to be commercially productive. 2) Interpretations of available geoscience and engineering data indicate with reasonable certainty that the objective formation is laterally continuous with drilled Proved locations. For Proved Reserves, the recovery efficiency applied to these reservoirs should be defined based on a range of possibilities supported by analogs and sound engineering judgment considering the characteristics of the Proved area and the applied development program.

Category	Definition	Guidelines
Probable Reserves	Probable Reserves are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves.	It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated Proved plus Probable Reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the 2P estimate. Probable Reserves may be assigned to areas of a reservoir adjacent to Proved where data control or interpretations of available data are less certain. The interpreted reservoir continuity may not meet the reasonable certainty criteria. Probable estimates also include incremental recoveries associated with project recovery efficiencies beyond that assumed for Proved.
Possible Reserves	Possible Reserves are those additional reserves which analysis of geoscience and engineering data indicate are less likely to be recoverable than Probable Reserves.	The total quantities ultimately recovered from the project have a low probability to exceed the sum of Proved plus Probable plus Possible (3P), which is equivalent to the high estimate scenario. When probabilistic methods are used, there should be at least a 10% probability that the actual quantities recovered will equal or exceed the 3P estimate. Possible Reserves may be assigned to areas of a reservoir adjacent to Probable where data control and interpretations of available data are progressively less certain. Frequently, this may be in areas where geoscience and engineering data are unable to clearly define the area and vertical reservoir limits of commercial production from the reservoir by a defined project. Possible estimates also include incremental quantities associated with project recovery efficiencies beyond that assumed for Probable.
Probable and Possible Reserves	(See above for separate criteria for Probable Reserves and Possible Reserves.)	The 2P and 3P estimates may be based on reasonable alternative technical and commercial interpretations within the reservoir and/or subject project that are clearly documented, including comparisonsto results in successful similar projects. In conventional accumulations, Probable and/or Possible Reserves may be assigned where geoscience and engineering data identify directly adjacent portions of a reservoir within the same accumulation that may be separated from Proved areas by minor faulting or other geological discontinuities and have not been penetrated by a wellbore but are interpreted to be in communication with the known (Proved) reservoir. Probable or Possible Reserves may be assigned to areas that are structurally higher than the Proved area. Possible (and in some cases, Probable) Reserves may be assigned to areas that are structurally lower than the adjacent Proved or 2P area. Caution should be exercised in assigning Reserves to adjacent reservoirs isolated by major, potentially sealing, faults until this reservoir is penetrated and evaluated as commercially productive. Justification for assigning Reserves in such cases should be clearly documented. Reserves should not be assigned to areas that are clearly separated from a known accumulation by non-productive reservoir (i.e., absence of reservoir, structurally low reservoir, or negative test results); such areas may contain Prospective Resources. In conventional accumulations, where drilling has defined a highest known oil (HKO) elevation and there exists the potential for an associated gas cap, Proved oil Reserves should only be assigned in the structurally higher portions of the reservoir if there is reasonable certainty that such portions are initially above bubble point pressure based on documented engineering analyses. Reservoir portions that do not meet this certainty may be assigned as Probable and Possible oil and/or gas based on reservoir fluid properties and pressure gradient interpretations.

Cash Flow Summaries

ECONOMIC SUMMARY PROJECTION

Project Name : China Oil & Gas
Partner : All Cases
Case Type : REPORT BREAK TOTAL CASE
Archive Set :

As Of Date : 1/1/2008
Discount Rate (%) : 10.00

Total Probable
TABLE 3

Cum Oil (Mbbl) : 0.00
Cum Gas (MMcf) : 0.00

Year	Gross Oil (Mbbl)	Gross Gas (MMcf)	Net Oil (Mbbl)	Net Gas (MMcf)	Oil Price ($/bbl)	Gas Price ($/Mcf)	Oil Revenue (M$)	Gas Revenue (M$)	Misc. Revenue (M$)	Total Revenue (M$)
2008	3.52	387.33	2.64	290.50	73.71	8.13	194.52	2,363.06	0.00	2,557.59
2009	1.72	287.19	1.29	215.39	66.43	7.77	85.60	1,673.90	0.00	1,759.50
2010	1.00	210.56	0.75	157.92	65.08	7.61	48.89	1,201.20	0.00	1,250.09
2011	0.71	172.72	0.53	129.54	64.97	7.49	34.57	969.65	0.00	1,004.22
2012	0.55	149.58	0.41	112.19	65.09	7.42	26.90	832.38	0.00	859.28
2013	0.45	132.79	0.34	99.59	65.09	7.42	21.90	738.91	0.00	760.81
2014	0.38	120.58	0.28	90.44	65.09	7.42	18.51	670.99	0.00	689.50
2015	0.33	111.04	0.25	83.28	65.09	7.42	16.03	617.89	0.00	633.91
2016	0.29	103.60	0.22	77.70	65.09	7.42	14.17	576.48	0.00	590.65
2017	0.26	97.13	0.19	72.85	65.09	7.42	12.63	540.48	0.00	553.11
2018	0.23	91.04	0.18	68.28	65.09	7.42	11.43	506.62	0.00	518.05
2019	0.21	85.58	0.16	64.19	65.09	7.42	10.43	476.25	0.00	486.68
2020	0.20	80.67	0.15	60.50	65.09	7.42	9.62	448.88	0.00	458.50
2021	0.18	75.62	0.14	56.71	65.09	7.42	8.88	420.78	0.00	429.65
2022	0.17	71.08	0.13	53.31	65.09	7.42	8.26	395.55	0.00	403.81
Sub	10.20	2,176.50	7.65	1,632.37	68.28	7.62	522.34	12,433.00	0.00	12,955.34
Rem	1.95	823.50	1.46	617.63	65.09	7.42	95.16	4,582.47	0.00	4,677.64
Total	**12.15**	**3,000.00**	**9.11**	**2,250.00**	**67.77**	**7.56**	**617.50**	**17,015.48**	**0.00**	**17,632.98**
Ult	**12.15**	**3,000.00**								

Year	Gross Completion No.	Net Tax Severance (M$)	Net Tax AdValorem (M$)	Net Oper. Expenses (M$)	Net Oper. Revenue (M$)	Net Investment (M$)	Net BFIT Income (M$)	Net Cum Income (M$)	Cum Disc. Cash Flow (M$)
2008	2	37.68	127.88	67.20	2,324.83	1,200.00	1,124.83	1,124.83	1,021.21
2009	2	81.45	87.98	67.20	1,522.88	0.00	1,522.88	2,647.70	2,345.93
2010	2	57.80	62.50	67.20	1,062.59	0.00	1,062.59	3,710.29	3,185.08
2011	2	46.40	50.21	67.20	840.41	0.00	840.41	4,550.70	3,788.13
2012	2	39.69	42.96	67.20	709.43	0.00	709.43	5,260.13	4,250.74
2013	2	35.13	38.04	67.20	620.44	0.00	620.44	5,880.57	4,618.45
2014	2	31.83	34.47	67.20	555.99	0.00	555.99	6,436.56	4,917.98
2015	2	29.26	31.70	67.20	505.76	0.00	505.76	6,942.33	5,165.67
2016	2	27.25	29.53	67.20	466.66	0.00	466.66	7,408.99	5,373.40
2017	2	25.52	27.66	67.20	432.73	0.00	432.73	7,841.72	5,548.51
2018	2	23.90	25.90	67.20	401.05	0.00	401.05	8,242.77	5,696.05
2019	2	22.45	24.33	67.20	372.69	0.00	372.69	8,615.46	5,820.69
2020	2	21.15	22.92	67.20	347.22	0.00	347.22	8,962.68	5,926.26
2021	2	19.82	21.48	67.20	321.15	0.00	321.15	9,283.84	6,015.02
2022	2	18.62	20.19	67.20	297.79	0.00	297.79	9,581.63	6,089.84
Sub		517.94	647.77	1,008.00	10,781.63	1,200.00	9,581.63	9,581.63	6,089.84
Rem.		215.74	233.88	1,458.33	2,769.68	0.00	2,769.68	2,769.68	373.86
Total		**733.69**	**881.65**	**2,466.33**	**13,551.31**	**1,200.00**	**12,351.31**	**12,351.31**	**6,463.71**

Present Worth Profile (M$)

PW 5.00% :	8,442.02
PW 8.00% :	7,121.45
PW 12.00% :	5,927.25
PW 15.00% :	5,284.98
PW 18.00% :	4,780.29
PW 20.00% :	4,499.23

ECONOMIC SUMMARY PROJECTION

Project Name : China Oil & Gas
Partner : All Cases
Case Type : REPORT BREAK TOTAL CASE
Archive Set :

As Of Date : 1/1/2008
Discount Rate (%) : 10.00

Probable Rsv Class
Non-Producing Rsv Category
TABLE 4

Cum Oil (Mbbl) : 0.00
Cum Gas (MMcf) : 0.00

Year	Gross Oil (Mbbl)	Gross Gas (MMcf)	Net Oil (Mbbl)	Net Gas (MMcf)	Oil Price ($/bbl)	Gas Price ($/Mcf)	Oil Revenue (M$)	Gas Revenue (M$)	Misc. Revenue (M$)	Total Revenue (M$)
2008	3.52	387.33	2.64	290.50	73.71	8.13	194.52	2,363.06	0.00	2,557.59
2009	1.72	287.19	1.29	215.39	66.43	7.77	85.60	1,673.90	0.00	1,759.50
2010	1.00	210.56	0.75	157.92	65.08	7.61	48.89	1,201.20	0.00	1,250.09
2011	0.71	172.72	0.53	129.54	64.97	7.49	34.57	969.65	0.00	1,004.22
2012	0.55	149.58	0.41	112.19	65.09	7.42	26.90	832.38	0.00	859.28
2013	0.45	132.79	0.34	99.59	65.09	7.42	21.90	738.91	0.00	760.81
2014	0.38	120.58	0.28	90.44	65.09	7.42	18.51	670.99	0.00	689.50
2015	0.33	111.04	0.25	83.28	65.09	7.42	16.03	617.89	0.00	633.91
2016	0.29	103.60	0.22	77.70	65.09	7.42	14.17	576.48	0.00	590.65
2017	0.26	97.13	0.19	72.85	65.09	7.42	12.63	540.48	0.00	553.11
2018	0.23	91.04	0.18	68.28	65.09	7.42	11.43	506.62	0.00	518.05
2019	0.21	85.58	0.16	64.19	65.09	7.42	10.43	476.25	0.00	486.68
2020	0.20	80.67	0.15	60.50	65.09	7.42	9.62	448.88	0.00	458.50
2021	0.18	75.62	0.14	56.71	65.09	7.42	8.88	420.78	0.00	429.65
2022	0.17	71.08	0.13	53.31	65.09	7.42	8.26	395.55	0.00	403.81
Sub	10.20	2,176.50	7.65	1,632.37	68.28	7.62	522.34	12,433.00	0.00	12,955.34
Rem	1.95	823.50	1.46	617.63	65.09	7.42	95.16	4,582.47	0.00	4,677.64
Total	**12.15**	**3,000.00**	**9.11**	**2,250.00**	**67.77**	**7.56**	**617.50**	**17,015.48**	**0.00**	**17,632.98**
Ult	**12.15**	**3,000.00**								

Year	Gross Completion No.	Net Tax Severance (M$)	Net Tax AdValorem (M$)	Net Oper. Expenses (M$)	Net Oper. Revenue (M$)	Net Investment (M$)	Net BFIT Income (M$)	Net Cum Income (M$)	Cum Disc. Cash Flow (M$)
2008	2	37.68	127.88	67.20	2,324.83	1,200.00	1,124.83	1,124.83	1,021.21
2009	2	81.45	87.98	67.20	1,522.88	0.00	1,522.88	2,647.70	2,345.93
2010	2	57.80	62.50	67.20	1,062.59	0.00	1,062.59	3,710.29	3,185.08
2011	2	46.40	50.21	67.20	840.41	0.00	840.41	4,550.70	3,788.13
2012	2	39.69	42.96	67.20	709.43	0.00	709.43	5,260.13	4,250.74
2013	2	35.13	38.04	67.20	620.44	0.00	620.44	5,880.57	4,618.45
2014	2	31.83	34.47	67.20	555.99	0.00	555.99	6,436.56	4,917.98
2015	2	29.26	31.70	67.20	505.76	0.00	505.76	6,942.33	5,165.67
2016	2	27.25	29.53	67.20	466.66	0.00	466.66	7,408.99	5,373.40
2017	2	25.52	27.66	67.20	432.73	0.00	432.73	7,841.72	5,548.51
2018	2	23.90	25.90	67.20	401.05	0.00	401.05	8,242.77	5,696.05
2019	2	22.45	24.33	67.20	372.69	0.00	372.69	8,615.46	5,820.69
2020	2	21.15	22.92	67.20	347.22	0.00	347.22	8,962.68	5,926.26
2021	2	19.82	21.48	67.20	321.15	0.00	321.15	9,283.84	6,015.02
2022	2	18.62	20.19	67.20	297.79	0.00	297.79	9,581.63	6,089.84
Sub		517.94	647.77	1,008.00	10,781.63	1,200.00	9,581.63	9,581.63	6,089.84
Rem.		215.74	233.88	1,458.33	2,769.68	0.00	2,769.68	2,769.68	373.86
Total		**733.69**	**881.65**	**2,466.33**	**13,551.31**	**1,200.00**	**12,351.31**	**12,351.31**	**6,463.71**

Present Worth Profile (M$)

PW 5.00% :	8,442.02
PW 8.00% :	7,121.45
PW 12.00% :	5,927.25
PW 15.00% :	5,284.98
PW 18.00% :	4,780.29
PW 20.00% :	4,499.23

ECONOMIC SUMMARY PROJECTION

Project Name : China Oil & Gas
Partner : All Cases
Case Type : REPORT BREAK TOTAL CASE
Archive Set :

As Of Date : 1/1/2008
Discount Rate (%) : 10.00

Probable Rsv Class
Undeveloped Rsv Category
TABLE 5

Cum Oil (Mbbl) : 0.00
Cum Gas (MMcf) : 0.00

Year	Gross Oil (Mbbl)	Gross Gas (MMcf)	Net Oil (Mbbl)	Net Gas (MMcf)	Oil Price ($/bbl)	Gas Price ($/Mcf)	Oil Revenue (M$)	Gas Revenue (M$)	Misc. Revenue (M$)	Total Revenue (M$)
2008	1.30	127.42	0.97	95.57	73.71	8.13	71.83	777.38	0.00	849.20
2009	0.89	121.72	0.67	91.29	66.43	7.77	44.42	709.48	0.00	753.89
2010	0.50	86.44	0.38	64.83	65.08	7.61	24.44	493.16	0.00	517.60
2011	0.35	70.07	0.26	52.55	64.97	7.49	17.04	393.39	0.00	410.43
2012	0.27	60.30	0.20	45.23	65.09	7.42	13.16	335.57	0.00	348.73
2013	0.22	53.32	0.16	39.99	65.09	7.42	10.66	296.72	0.00	307.39
2014	0.18	48.29	0.14	36.22	65.09	7.42	8.98	268.73	0.00	277.71
2015	0.16	44.38	0.12	33.29	65.09	7.42	7.76	246.98	0.00	254.74
2016	0.14	41.35	0.11	31.01	65.09	7.42	6.85	230.09	0.00	236.94
2017	0.12	38.73	0.09	29.05	65.09	7.42	6.10	215.51	0.00	221.61
2018	0.11	36.30	0.08	27.23	65.09	7.42	5.51	202.00	0.00	207.51
2019	0.10	34.12	0.08	25.59	65.09	7.42	5.02	189.89	0.00	194.91
2020	0.09	32.16	0.07	24.12	65.09	7.42	4.63	178.98	0.00	183.61
2021	0.09	30.15	0.07	22.61	65.09	7.42	4.27	167.77	0.00	172.04
2022	0.08	28.34	0.06	21.26	65.09	7.42	3.97	157.71	0.00	161.68
Sub	4.62	853.12	3.46	639.84	67.77	7.60	234.64	4,863.36	0.00	5,098.00
Rem	0.85	298.90	0.64	224.18	65.09	7.42	41.61	1,663.28	0.00	1,704.89
Total	**5.47**	**1,152.02**	**4.10**	**864.02**	**67.35**	**7.55**	**276.25**	**6,526.64**	**0.00**	**6,802.89**
Ult	**5.47**	**1,152.02**								

Year	Gross Completion No.	Net Tax Severance (M$)	Net Tax AdValorem (M$)	Net Oper. Expenses (M$)	Net Oper. Revenue (M$)	Net Investment (M$)	Net BFIT Income (M$)	Net Cum Income (M$)	Cum Disc. Cash Flow (M$)
2008	1	11.59	42.46	19.69	775.47	1,800.00	-1,024.53	-1,024.53	-1,016.36
2009	1	34.95	37.69	33.60	647.65	0.00	647.65	-376.88	-452.70
2010	1	23.96	25.88	33.60	434.16	0.00	434.16	57.28	-109.77
2011	1	18.98	20.52	33.60	337.32	0.00	337.32	394.60	132.30
2012	1	16.12	17.44	33.60	281.57	0.00	281.57	676.18	315.93
2013	1	14.20	15.37	33.60	244.22	0.00	244.22	920.39	460.67
2014	1	12.83	13.89	33.60	217.40	0.00	217.40	1,137.79	577.79
2015	1	11.76	12.74	33.60	196.64	0.00	196.64	1,334.43	674.10
2016	1	10.94	11.85	33.60	180.55	0.00	180.55	1,514.98	754.47
2017	1	10.23	11.08	33.60	166.70	0.00	166.70	1,681.68	821.93
2018	1	9.58	10.38	33.60	153.96	0.00	153.96	1,835.64	878.56
2019	1	9.00	9.75	33.60	142.57	0.00	142.57	1,978.21	926.25
2020	1	8.47	9.18	33.60	132.35	0.00	132.35	2,110.56	966.49
2021	1	7.94	8.60	33.60	121.90	0.00	121.90	2,232.46	1,000.18
2022	1	7.46	8.08	33.60	112.54	0.00	112.54	2,345.00	1,028.46
Sub		208.01	254.90	490.09	4,145.00	1,800.00	2,345.00	2,345.00	1,028.46
Rem.		78.67	85.24	606.43	934.55	0.00	934.55	934.55	133.91
Total		**286.68**	**340.14**	**1,096.52**	**5,079.54**	**1,800.00**	**3,279.54**	**3,279.54**	**1,162.36**

Present Worth Profile (M$)

PW 5.00% :	1,886.70
PW 8.00% :	1,404.18
PW 12.00% :	964.87
PW 15.00% :	728.72
PW 18.00% :	544.04
PW 20.00% :	441.81

ECONOMIC SUMMARY PROJECTION

Project Name : China Oil & Gas
Partner : All Cases
Case Type : GRAND TOTAL CASE
Archive Set :

As Of Date : 1/1/2008
Discount Rate (%) : 10.00
20 AC. DEVELOPMENT

Probable Rsv Class
Undeveloped Rsv Category
TABLE 6

Cum Oil (Mbbl) : 0.00
Cum Gas (MMcf) : 0.00

Year	Gross Oil (Mbbl)	Gross Gas (MMcf)	Net Oil (Mbbl)	Net Gas (MMcf)	Oil Price ($/bbl)	Gas Price ($/Mcf)	Oil Revenue (M$)	Gas Revenue (M$)	Misc. Revenue (M$)	Total Revenue (M$)
2008	6.15	576.99	4.61	432.74	73.71	8.13	340.04	3,520.14	0.00	3,860.18
2009	22.37	2,408.75	16.77	1,806.57	66.43	7.77	1,114.23	14,039.72	0.00	15,153.95
2010	30.17	3,622.53	22.63	2,716.89	65.08	7.61	1,472.64	20,666.06	0.00	22,138.70
2011	35.15	4,556.11	26.36	3,417.09	64.97	7.49	1,712.72	25,578.59	0.00	27,291.31
2012	38.93	5,353.67	29.19	4,015.25	65.09	7.42	1,900.34	29,791.17	0.00	31,691.51
2013	41.75	6,024.93	31.31	4,518.70	65.09	7.42	2,038.05	33,526.50	0.00	35,564.54
2014	44.20	6,642.08	33.15	4,981.56	65.09	7.42	2,157.83	36,960.70	0.00	39,118.53
2015	46.26	7,202.17	34.69	5,401.63	65.09	7.42	2,258.22	40,077.38	0.00	42,335.60
2016	48.18	7,741.82	36.14	5,806.37	65.09	7.42	2,352.32	43,080.34	0.00	45,432.67
2017	49.64	8,205.31	37.23	6,153.98	65.09	7.42	2,423.62	45,659.46	0.00	48,083.08
2018	51.07	8,659.67	38.30	6,494.75	65.09	7.42	2,493.40	48,187.83	0.00	50,681.22
2019	52.39	9,087.89	39.29	6,815.92	65.09	7.42	2,557.81	50,570.72	0.00	53,128.52
2020	53.76	9,518.16	40.32	7,138.62	65.09	7.42	2,624.69	52,965.01	0.00	55,589.70
2021	54.71	9,868.95	41.03	7,401.71	65.09	7.42	2,670.72	54,917.00	0.00	57,587.71
2022	55.72	10,222.98	41.79	7,667.24	65.09	7.42	2,720.21	56,887.05	0.00	59,607.26
Sub	630.44	99,692.03	472.83	74,769.02	65.22	7.44	30,836.84	556,427.66	0.00	587,264.50
Rem	363.59	107,975.79	272.69	80,981.84	65.09	7.42	17,750.30	600,844.77	0.00	618,595.07
Total	**994.03**	**207,667.82**	**745.52**	**155,750.86**	**65.17**	**7.43**	**48,587.14**	**1,157,272.43**	**0.00**	**1,205,859.57**
Ult	**994.03**	**207,667.82**								

Year	Gross Completion No.	Net Tax Severance (M$)	Net Tax AdValorem (M$)	Net Oper. Expenses (M$)	Net Oper. Revenue (M$)	Net Investment (M$)	Net BFIT Income (M$)	Net Cum Income (M$)	Cum Disc. Cash Flow (M$)
2008	8	29.66	193.01	80.50	3,557.01	16,200.00	-12,642.99	-12,642.99	-11,912.81
2009	20	374.77	757.70	461.22	13,560.27	21,600.00	-8,039.73	-20,682.72	-18,900.67
2010	32	697.66	1,106.94	869.95	19,464.16	21,600.00	-2,135.84	-22,818.56	-20,607.98
2011	44	934.03	1,364.57	1,278.68	23,714.04	21,600.00	2,114.04	-20,704.52	-19,128.72
2012	56	1,131.18	1,584.58	1,688.35	27,287.40	21,600.00	5,687.40	-15,017.12	-15,473.17
2013	69	1,303.53	1,778.23	2,097.33	30,385.46	23,400.00	6,985.46	-8,031.66	-11,347.85
2014	81	1,482.02	1,955.93	2,506.40	33,174.19	21,600.00	11,574.19	3,542.54	-5,094.89
2015	93	1,645.41	2,116.78	2,915.13	35,658.28	21,600.00	14,058.28	17,600.82	1,792.31
2016	105	1,778.93	2,271.63	3,324.83	38,057.27	21,600.00	16,457.27	34,058.09	9,106.97
2017	117	1,894.76	2,404.15	3,733.69	40,050.48	21,600.00	18,450.48	52,508.57	16,550.37
2018	129	2,007.53	2,534.06	4,142.41	41,997.21	21,600.00	20,397.21	72,905.79	24,023.53
2019	142	2,112.94	2,656.43	4,551.32	43,807.83	23,400.00	20,407.83	93,313.62	30,840.20
2020	154	2,249.90	2,779.48	4,961.31	45,599.00	21,600.00	23,999.00	117,312.62	38,144.93
2021	166	2,346.54	2,879.39	5,370.14	46,991.65	21,600.00	25,391.65	142,704.27	45,161.26
2022	178	2,432.43	2,980.36	5,778.86	48,415.60	21,600.00	26,815.60	169,519.87	51,890.85
Sub		22,421.28	29,363.22	43,760.11	491,719.87	322,200.00	169,519.87	169,519.87	51,890.85
Rem.		28,331.92	30,929.75	144,503.31	414,830.09	9,000.00	405,830.09	405,830.09	52,993.61
Total		**50,753.20**	**60,292.98**	**188,263.42**	**906,549.97**	**331,200.00**	**575,349.97**	**575,349.97**	**104,884.46**

Present Worth Profile (M$)

PW 5.00% :	232,335.97
PW 8.00% :	142,810.79
PW 12.00% :	77,657.59
PW 15.00% :	49,779.71
PW 18.00% :	31,667.55
PW 20.00% :	23,061.75

ECONOMIC SUMMARY PROJECTION

Project Name : China Oil & Gas
Partner : All Cases
Case Type : GRAND TOTAL CASE
Archive Set :

As Of Date : 1/1/2008
Discount Rate (%) : 10.00
40 AC. DEVELOPMENT

Probable Rsv Class
Undeveloped Rsv Category
TABLE 7

Cum Oil (Mbbl) : 0.00
Cum Gas (MMcf) : 0.00

Year	Gross Oil (Mbbl)	Gross Gas (MMcf)	Net Oil (Mbbl)	Net Gas (MMcf)	Oil Price ($/bbl)	Gas Price ($/Mcf)	Oil Revenue (M$)	Gas Revenue (M$)	Misc. Revenue (M$)	Total Revenue (M$)
2008	6.15	576.99	4.61	432.74	73.71	8.13	340.04	3,520.14	0.00	3,860.18
2009	22.37	2,408.75	16.77	1,806.57	66.43	7.77	1,114.23	14,039.72	0.00	15,153.95
2010	30.17	3,622.53	22.63	2,716.89	65.08	7.61	1,472.64	20,666.06	0.00	22,138.70
2011	35.15	4,556.11	26.36	3,417.09	64.97	7.49	1,712.72	25,578.59	0.00	27,291.31
2012	38.93	5,353.67	29.19	4,015.25	65.09	7.42	1,900.34	29,791.17	0.00	31,691.51
2013	41.75	6,024.93	31.31	4,518.70	65.09	7.42	2,038.05	33,526.50	0.00	35,564.54
2014	44.20	6,642.08	33.15	4,981.56	65.09	7.42	2,157.83	36,960.70	0.00	39,118.53
2015	46.14	7,192.44	34.61	5,394.33	65.09	7.42	2,252.58	40,023.20	0.00	42,275.78
2016	33.50	6,283.32	25.12	4,712.49	65.09	7.42	1,635.28	34,964.34	0.00	36,599.62
2017	23.29	5,209.21	17.47	3,906.91	65.09	7.42	1,136.89	28,987.31	0.00	30,124.20
2018	18.49	4,600.25	13.87	3,450.19	65.09	7.42	902.81	25,598.69	0.00	26,501.50
2019	15.49	4,169.48	11.62	3,127.11	65.09	7.42	756.30	23,201.59	0.00	23,957.89
2020	13.42	3,846.35	10.07	2,884.76	65.09	7.42	655.33	21,403.47	0.00	22,058.80
2021	11.81	3,562.15	8.86	2,671.61	65.09	7.42	576.75	19,822.03	0.00	20,398.78
2022	10.59	3,328.03	7.94	2,496.03	65.09	7.42	516.92	18,519.26	0.00	19,036.18
Sub	391.44	67,376.31	293.58	50,532.23	65.29	7.45	19,168.73	376,602.78	0.00	395,771.51
Rem	111.66	38,592.12	83.75	28,944.09	65.09	7.42	5,451.25	214,750.70	0.00	220,201.94
Total	**503.10**	**105,968.43**	**377.32**	**79,476.32**	**65.25**	**7.44**	**24,619.98**	**591,353.48**	**0.00**	**615,973.46**
Ult	**503.10**	**105,968.43**								

Year	Gross Completion No.	Net Tax Severance (M$)	Net Tax AdValorem (M$)	Net Oper. Expenses (M$)	Net Oper. Revenue (M$)	Net Investment (M$)	Net BFIT Income (M$)	Net Cum Income (M$)	Cum Disc. Cash Flow (M$)
2008	8	29.66	193.01	80.50	3,557.01	16,200.00	-12,642.99	-12,642.99	-11,912.81
2009	20	374.77	757.70	461.22	13,560.27	21,600.00	-8,039.73	-20,682.72	-18,900.67
2010	32	697.66	1,106.94	869.95	19,464.16	21,600.00	-2,135.84	-22,818.56	-20,607.98
2011	44	934.03	1,364.57	1,278.68	23,714.04	21,600.00	2,114.04	-20,704.52	-19,128.72
2012	56	1,131.18	1,584.58	1,688.35	27,287.40	21,600.00	5,687.40	-15,017.12	-15,473.17
2013	69	1,303.53	1,778.23	2,097.33	30,385.46	23,400.00	6,985.46	-8,031.66	-11,347.85
2014	81	1,482.02	1,955.93	2,506.40	33,174.19	21,600.00	11,574.19	3,542.54	-5,094.89
2015	92	1,645.12	2,113.79	2,914.13	35,602.75	18,000.00	17,602.75	21,145.28	3,457.24
2016	92	1,650.65	1,829.98	3,091.20	30,027.79	0.00	30,027.79	51,173.07	16,846.06
2017	92	1,392.53	1,506.21	3,091.20	24,134.26	0.00	24,134.26	75,307.33	26,618.90
2018	92	1,224.49	1,325.07	3,091.20	20,860.74	0.00	20,860.74	96,168.07	34,296.35
2019	92	1,106.60	1,197.89	3,091.20	18,562.20	0.00	18,562.20	114,730.26	40,506.17
2020	92	1,018.64	1,102.94	3,091.20	16,846.03	0.00	16,846.03	131,576.29	45,628.72
2021	92	941.80	1,019.94	3,091.20	15,345.84	0.00	15,345.84	146,922.13	49,870.27
2022	92	878.77	951.81	3,091.20	14,114.41	0.00	14,114.41	161,036.54	53,416.89
Sub		15,811.44	19,788.58	33,534.95	326,636.54	165,600.00	161,036.54	161,036.54	53,416.89
Rem.		10,162.00	11,010.10	67,271.90	131,757.95	0.00	131,757.95	131,757.95	17,669.73
Total		**25,973.44**	**30,798.67**	**100,806.85**	**458,394.49**	**165,600.00**	**292,794.49**	**292,794.49**	**71,086.63**

Present Worth Profile (M$)

PW 5.00% :	138,580.95
PW 8.00% :	92,306.52
PW 12.00% :	54,939.13
PW 15.00% :	37,265.30
PW 18.00% :	24,883.62
PW 20.00% :	18,647.57

Tabular Summaries

Economic One-Liners

Project Name : China Oil & Gas

Ownership Group : All Cases

As of Date: 1/1/2008

TABLE 8

Lease Name	Reserve Category	Net Reserves		Net Revenue			Expense & Tax	Invest.	Cash Flow		Life
		Oil (Mbbl)	Gas (MMcf)	Oil (M$)	Gas (M$)	Other (M$)	(M$)	(M$)	Non-Disc. (M$)	Disc. 10% (M$)	(years)
Probable Rsv Class											
Non-Producing Rsv Category											
DD 1-18	PR-NP	4.56	1,125.00	308.75	8,507.74	0.00	2,040.84	600.00	6,175.65	3,231.85	36.71
DD 22X-27	PR-NP	4.56	1,125.00	308.75	8,507.74	0.00	2,040.84	600.00	6,175.65	3,231.85	36.71
	Total	**9.11**	**2,250.00**	**617.50**	**17,015.48**	**0.00**	**4,081.67**	**1,200.00**	**12,351.31**	**6,463.71**	**36.71**
Probable Rsv Class											
Undeveloped Rsv Category											
DD DRILL LOCATION {Well #001}	PR-UD	4.10	864.02	276.25	6,526.64	0.00	1,723.34	1,800.00	3,279.54	1,162.36	33.05
	Total	**4.10**	**864.02**	**276.25**	**6,526.64**	**0.00**	**1,723.34**	**1,800.00**	**3,279.54**	**1,162.36**	**33.05**
Probable Rsv Class	**Total**	**13.21**	**3,114.02**	**893.75**	**23,542.12**	**0.00**	**5,805.02**	**3,000.00**	**15,630.85**	**7,626.07**	**36.71**

Gross Ultimates, Interests, & Prices

GROSS ULTIMATE RESERVES, CUMULATIVE PRODUCTION AND BASIC ECONOMIC DATA

PNP + DRILL 1 - FLAT CASE

As of: 1/1/2008

TABLE 9

LEASE NAME	RES CAT	GROSS ULTIMATE Mbbl	GROSS ULTIMATE MMcf	CUM OIL Mbbl	CUM GAS MMcf	EXPENSE INITIAL DECIMAL	INTEREST FINAL DECIMAL	REVENUE INITIAL DECIMAL	INTEREST FINAL DECIMAL	OIL PRC INITIAL $/bbl	GAS PRC INITIAL $/Mcf	TOTAL OP COST INITIAL $/MO
Probable Rsv Class												
Non-Producing Rsv Category												
DD 1-18	PR-NP	6.07	1,500.00	0.00	0.00	1.0000000	1.0000000	0.7500000	0.7500000	73.71	8.13	2,800
DD 22X-27	PR-NP	6.07	1,500.00	0.00	0.00	1.0000000	1.0000000	0.7500000	0.7500000	73.71	8.13	2,800
		12.15	**3,000.00**	**0.00**	**0.00**							
Probable Rsv Class												
Undeveloped Rsv Category												
DD DRILL LOCATION {Well #001}	PR-UD	5.47	1,152.02	0.00	0.00	1.0000000	1.0000000	0.7500000	0.7500000	73.71	8.13	0
		5.47	**1,152.02**	**0.00**	**0.00**							
Probable Rsv Class		**17.62**	**4,152.02**	**0.00**	**0.00**							

43-047-31726
15 9S 24E

*Swift*LOOK

Multi Stage Gas Well Model

DD 31-15A

THURSTON ENERGY
UINTA, UT

API Number: 12345678901234

SwiftLOOK is an interactive reservoir analysis tool combining well log and stimulation data to predict the well performance

HALLIBURTON

RECEIVED
MAY 24 2011
DIV. OF OIL, GAS & MINING

Executive Summary

SwiftLOOK predicts a post-stimulation production rate of 881 MSCF/day assuming an infinite fracture half-length of 200ft. This value is based on the analysis of triple combo logging data, previous experience in the area, and on the recommendation of performing 16 hydraulic fracturing treatments. Detailed information about other fracture half-length production values are summarized below.

The SwiftLOOK process assumes the ability to correlate triple combo logging data to reservoir permeabilities and porosities. The accuracy of this interpretation is dependent on many factors, the principle being the detailed study of other wells in the particular field or area and calibration of the SwiftLOOK process with stimulation treatment and production results. Correlation of the triple combo data requires considerable up-front engineering work from someone qualified in the SIGMA process and can be dramatically improved by use of MRIL data and correlation with SwiftLOOK predictions. Besides the ability to correlate the triple combo logs, the accuracy is also affected by the ability to predict reservoir drainage area, ability to predict reservoir rock properties and stresses, and ability to predict stimulation response. The process can be steadily improved by correlation of the SwiftLOOK interpretation with stimulation behavior, both on-site pressure response and post-treatment production response.

Well Data

Well Name:	DD 31-15A
Operator:	THURSTON ENERGY
Location:	UINTA, UT
Well Type:	Gas
API Number:	12345678901234
Wi:	100.0%
NRI:	75.0%
Pwf (ini):	789 psia
Pwf (abn):	100 psia
Rw:	0.25 ft
Pac:	14.7 psia
Tsc:	60 deg F
OGIP:	3.94 BCF

Gas	
Gas Gravity:	0.65
% N2:	0.0%
% CO2	0.0%
% H2S	0.0%
Condensate?	No
Oil	
Bo:	1.25 STB/RB
Viscosity:	2 cp
GOR:	2500 SCF/STB
Pbp:	1001 psia
Water	
Salinity:	40 kppm
Bw:	1.000 STB/RB
Viscosity:	0.373 cps

Total Number of Zones:	83
Number of Stages:	9
Completed Number of Zones:	40
Initial Frac Length:	50 ft
Frac Length Increment:	50 ft
Economic Limit:	9 mcf/d
Mechanical Limit:	9 mcf/d
Operating Cost:	$1,000.00 /month
Gas Price:	$3.50 mcf/d
Oil Price:	$60.00 /bbl
Gas Sev Tax:	7.5%
Oil Sev Tax:	4.6%
Discount Rate:	10.0%
Condensate Yield:	1 bo/mmcf

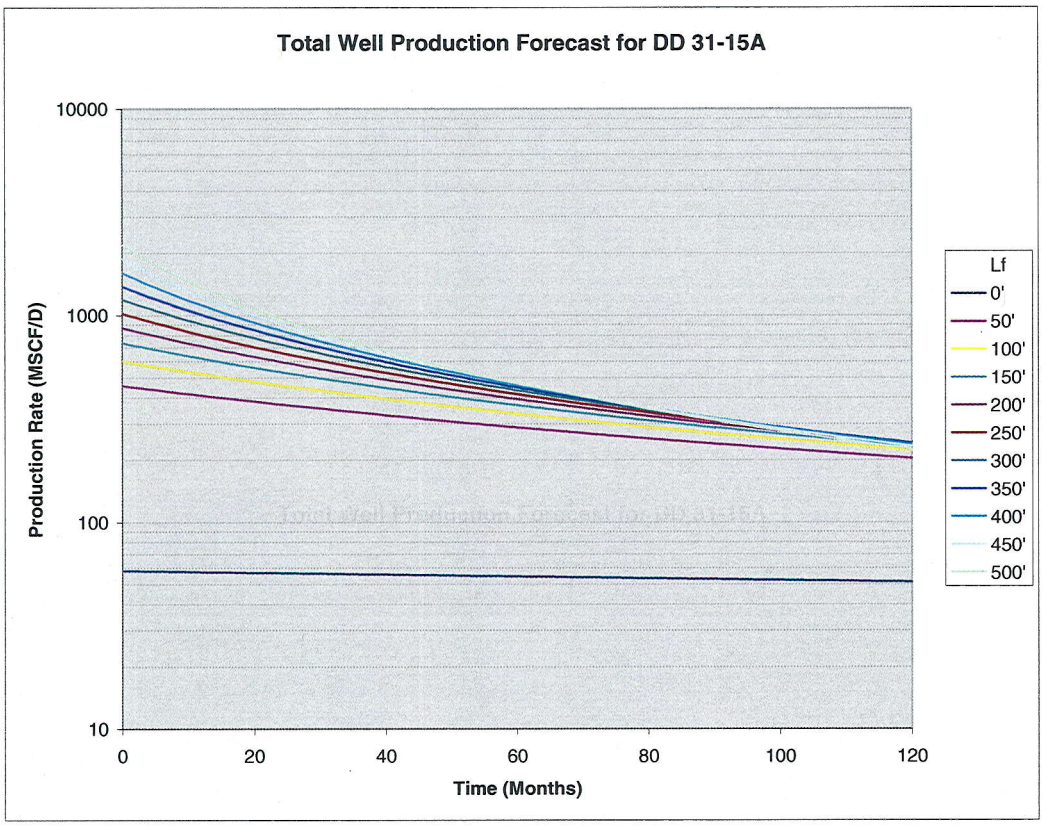
Summary - Stage Properties

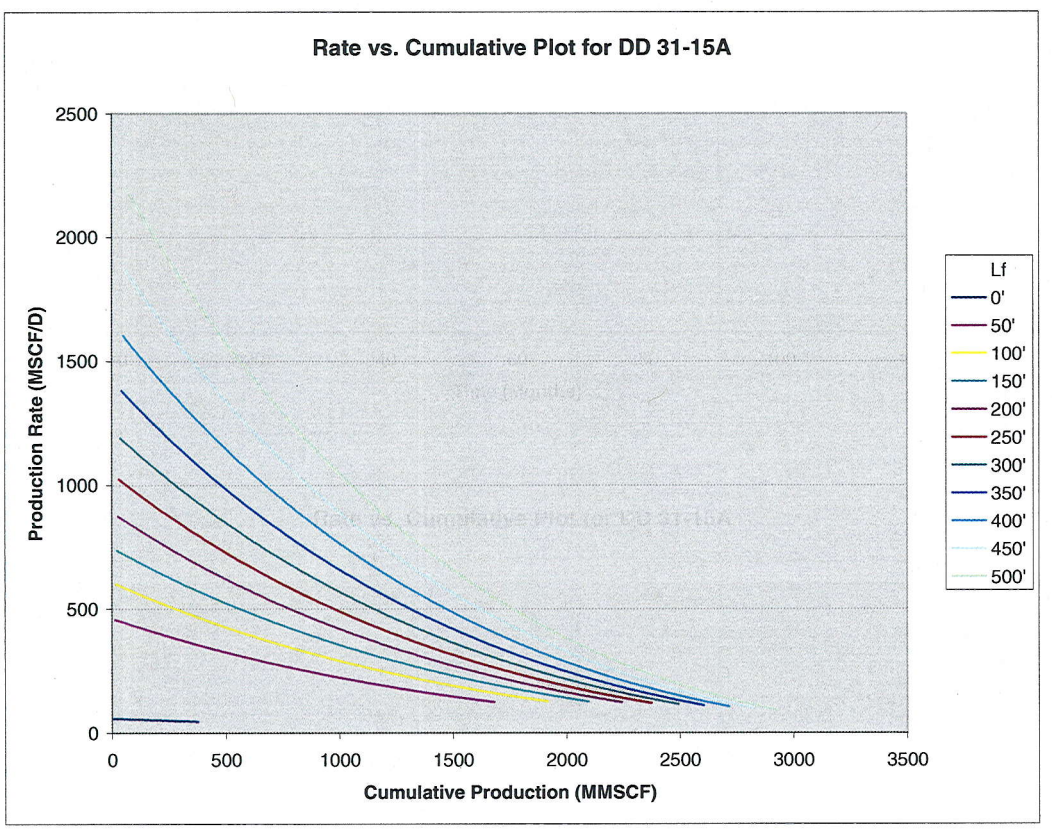
API Number	Stage	Zn Start	Zn Stop	Gross Pay	Net Pay	Porosity	Sw	khy	Pi	Temp	OGIP/Acre	Area	Φ-h	Φ-hSg	khy/H	% Total khy/H
12345678901234	1	7210.50	7370.50	98.00	53.50	0.10	0.45	0.0263	3154.36	187.00	24838.16	20.00	5.35	2.94	0.24	8.62
12345678901234	2	6927.50	7120.50	64.00	36.00	0.10	0.45	0.0125	3034.80	182.50	15832.04	20.00	3.48	1.91	0.10	3.70
12345678901234	3	6724.00	6892.00	103.50	75.50	0.12	0.42	0.0317	2972.85	178.75	41757.91	20.00	8.87	5.11	0.84	30.12
12345678901234	4	6550.00	6685.00	57.00	23.50	0.11	0.35	0.0249	2858.64	175.80	12825.42	20.00	2.49	1.61	0.16	5.66
12345678901234	5	6244.50	6527.00	192.50	61.00	0.11	0.43	0.0374	2791.09	172.40	31079.10	20.00	6.99	3.96	0.43	15.36
12345678901234	6	6004.50	6211.50	139.50	55.00	0.11	0.48	0.0122	2641.13	168.17	22848.58	20.00	5.86	3.02	0.15	5.43
12345678901234	7	5812.00	5976.00	72.50	37.50	0.13	0.50	0.0073	2564.93	165.00	17491.00	20.00	4.77	2.36	0.14	4.91
12345678901234	8	5502.50	5526.50	24.00	7.00	0.12	0.51	0.0015	2393.00	158.00	2987.58	20.00	0.86	0.42	0.01	0.37
12345678901234	9	4200.50	4412.50	87.00	71.00	0.11	0.40	0.0281	1876.32	139.33	27144.09	20.00	7.80	4.69	0.72	25.84
Total		*4200.50*	*7370.50*	*838.00*	*420.00*	*0.11*	*0.44*	*0.0066*	*2698.57*	*169.66*	*196803.90*	*20.00*	*46.46*	*26.02*	*2.79*	*100.00*

Summary - Stage Production

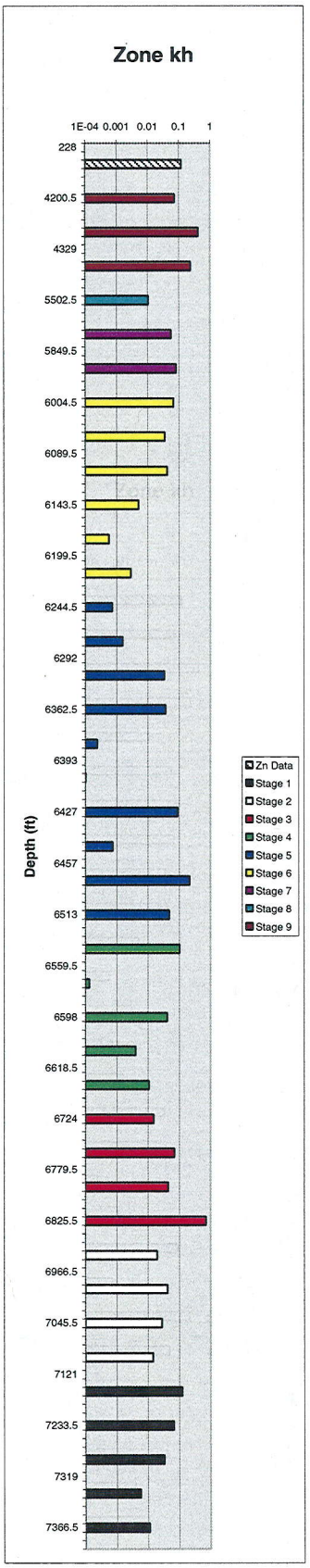
Well Total Production Summary (MSCF/D)

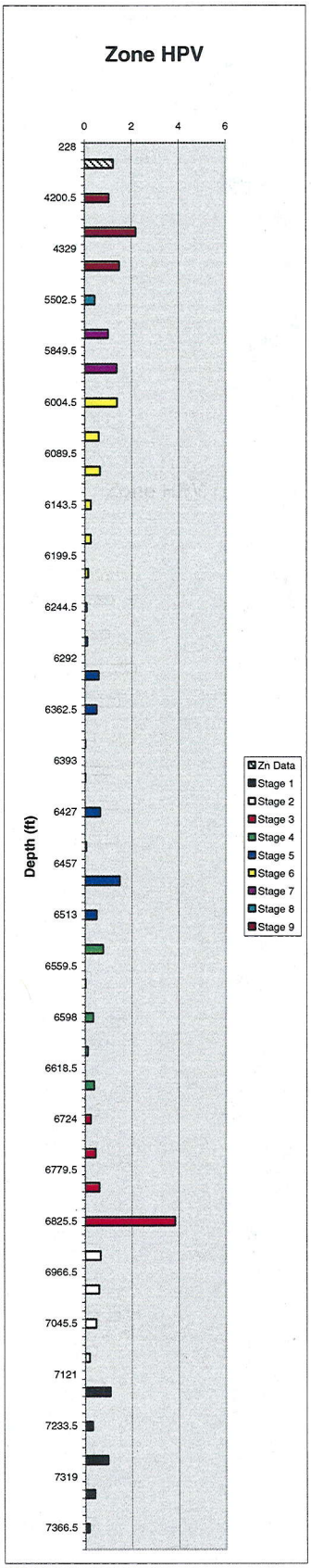
Lf (ft)	0	50	100	150	200	250	300	350	400	450	500
Stage 1	7	52	68	83	99	116	135	157	183	214	252
Stage 2	3	21	28	34	40	47	55	64	74	87	102
Stage 3	21	166	218	267	318	373	435	506	589	688	810
Stage 4	4	29	39	47	56	66	77	90	104	122	144
Stage 5	10	77	101	124	148	174	202	235	274	320	377
Stage 6	3	25	33	40	48	56	66	77	89	104	123
Stage 7	3	22	28	35	42	49	57	66	77	90	106
Stage 8	0	1	2	2	3	3	4	4	5	6	7
Stage 9	8	66	87	107	127	149	174	202	235	275	324
Total	**58**	**459**	**604**	**740**	**881**	**1034**	**1205**	**1401**	**1630**	**1906**	**2245**


Total Well Production Forecast for DD 31-15A
Production Rate (MSCF/D)
10000
1000
100
10
0
20
40
60
80
100
120
Time (Months)
Lf
0'
50'
100'
150'
200'
250'
300'
350'
400'
450'
500'


Rate vs. Cumulative Plot for DD 31-15A
Production Rate (MSCF/D)
2500
2000
1500
1000
500
0
0
500
1000
1500
2000
2500
3000
3500
Cumulative Production (MMSCF)
Lf
0'
50'
100'
150'
200'
250'
300'
350'
400'
450'
500'

DD 31-15A
THURSTON ENERGY
UINTA, UT
API Number: 12345678901234





DD 31-15A
THURSTON ENERGY
UINTA, UT
API Number: 12345678901234

Stage 1 Production

Zone	Zone Start	Zone Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
9	7210.5	7229	18	0.1106	0.46	0.006919	1.07	3130	186	20	1.9908	1.075032	3364.85	199.956	1	18.5
7	7233.5	7238	5	0.095	0.33	0.01322	0.32	3134	186	20	0.475	0.31825	997.3955	59.1945	1	4.5
5	7279	7318.5	19	0.0932	0.45	0.00174	0.97	3169	187	20	1.7708	0.97394	3086.416	182.1268	1	39.5
3	7324	7355.5	8.5	0.1029	0.53	0.00068	0.41	3185	188	20	0.87465	0.411086	1309.307	77.28407	1	31.5
1	7366.5	7370.5	3	0.0788	0.33	0.003721	0.16	3191	188	20	0.2364	0.158388	505.4161	29.77694	1	4

Zone	Zn Start	Zn Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
Total	7210.5	7370.5	53.5	0.10	0.45	0.0263	2.93	3154.36	187.00	20.0	5.35	2.94	9263.38	548.34	1.00	98.00

Lf =	0	50	100	150	200	250	300	350	400	450	500
Qi / IP30 =	6.50	51.51	67.73	83.02	98.85	116.02	135.19	157.15	182.89	213.77	251.80

Economic Frac Data

	NPV ($M)	Incr ROI	Frac Cost ($M)	Incr ROI Plot Point
50	$114		159	
100	$169	3	176	75
150	$210	3	192	125
200	$245	2	208	175
250	$277	2	225	225
300	$308	2	241	275
350	$338	2	257	325
400	$378	2	274	375
450	$411	2	290	425
500	$447	2	306	475

Costs		Rockies	
Fixed	$45,000	Bauxite Frac	
Prop	$200	/Mlbs	400
Fluid	$450	/Mgal	380
Actual Lf	200 ft		

Lf =	50	100	150	200	250	300	350	400	450	500
Propant =	144060	164640	185220	205800	226380	246960	267540	288120	308700	329280
Fluid =	189946	217081	244216	271351	298486	325621	352756	379892	407027	434162

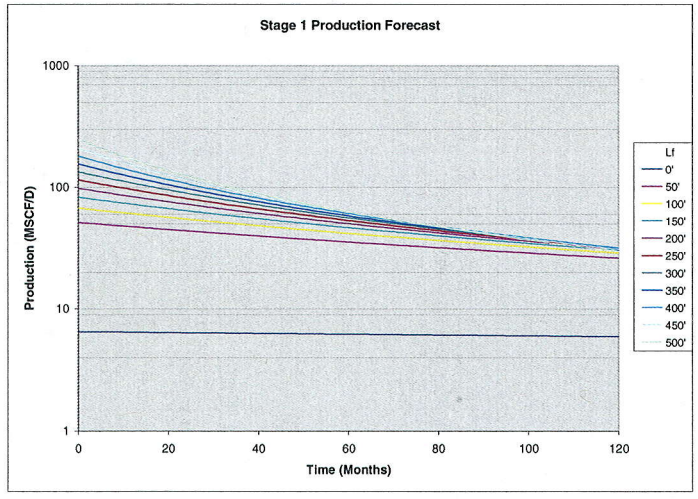
Lf =	50	100	150	200	250	300	350	400	450	500
Prop =	28,812	32,928	37,044	41,160	45,276	49,392	53,508	57,624	61,740	65,856
Fluid =	85,476	97,686	109,897	122,108	134,319	146,530	158,740	170,951	183,162	195,373
Estimated Frac Costs (M$) =	159	176	192	208	225	241	257	274	290	306

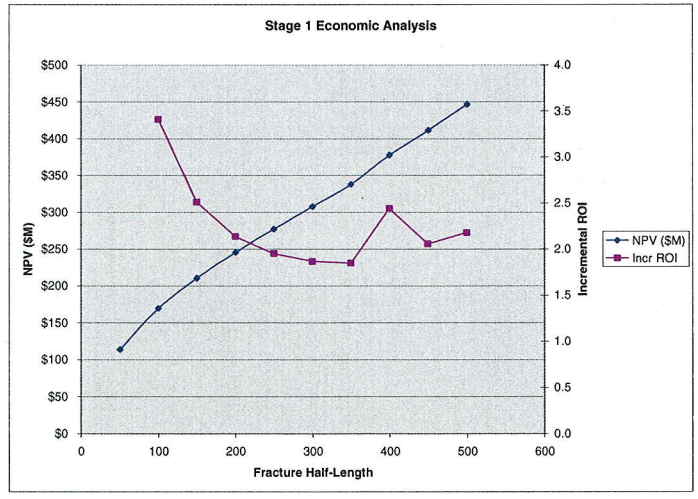
Swift

Data Format	Percent
Design Driver	ZGPAY
Design Direction	Proppant
Pad Format	Percent
Equivalent Zone ID	3
Fluid Parameters(gal/ft)	3000
Proppant Parameters(lb/ft)	2800
Total Fluid Vol (gal)	271351
Total Proppant (lbs)	205800
OGIP (BCF)	0.497

Steps	1	2	3	4	5	6
Fluid Type	Pad	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater
PPG	Pad	0.5	1	1.5	2	2.5
Fluid Volume (gal)	67837.78	109760	41160	18293.33	6860	27440
% Total Fluid	25	0	0	0	0	0
Proppant Weight (lbs)	0	54880	41160	27440	13720	68600
% Total Prop	0	20	15	10	5	25
Prop Type	0	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed
Rate	0	0	0	0	0	0

Plotted Data





DD 31-15A
THURSTON ENERGY
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API Number: 12345678901234

Stage 2 Production

Zone	Zone Start	Zone Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
17	6927.5	6966	12.5	0.0948	0.45	0.001581	0.66	3016	181	20	1.185	0.65175	1965.678	117.9668	1	38.5
15	6971	6983	11	0.1013	0.46	0.003791	0.6	3024	182	20	1.1143	0.601722	1819.607	109.5134	1	12
13	7045.5	7055	9	0.0945	0.45	0.003048	0.47	3055	183	20	0.8505	0.467775	1429.053	85.60283	1	9.5
11	7116.5	7120.5	3.5	0.0935	0.41	0.00408	0.19	3083	184	20	0.32725	0.193078	595.2579	35.52626	1	4

Zone	Zn Start	Zn Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
Total	6927.5	7120.5	36	0.10	0.45	0.0125	1.92	3034.8	182.50	20.0	3.48	1.91	5809.60	348.61	1.00	64.00

Lf =	0	50	100	150	200	250	300	350	400	450	500
Qi / IP30 =	2.64	20.94	27.53	33.74	40.18	47.15	54.94	63.87	74.33	86.88	102.33

Economic Frac Data

	NPV ($M)	Incr ROI	Frac Cost ($M)	Incr ROI Plot Point
50	($49)		120	
100	($22)	3	130	75
150	$2	2	141	125
200	$21	2	152	175
250	$39	2	162	225
300	$56	2	173	275
350	$74	2	184	325
400	$93	2	194	375
450	$113	2	205	425
500	$135	2	216	475

Costs		Rockies	
Fixed	$45,000	Bauxite Frac	
Prop	$200	/Mlbs	400
Fluid	$450	/Mgal	380
Actual Lf	200 ft		

Lf =	50	100	150	200	250	300	350	400	450	500
Propant =	94080	107520	120960	134400	147840	161280	174720	188160	201600	215040
Fluid =	124046	141767	159488	177209	194930	212651	230372	248092	265813	283534

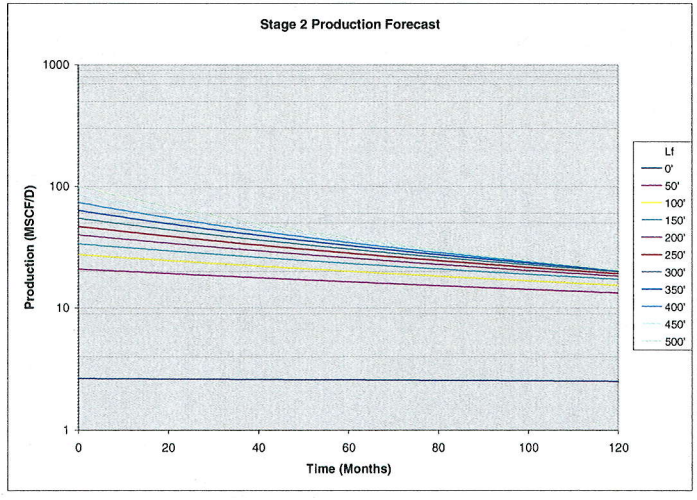
Lf =	50	100	150	200	250	300	350	400	450	500
Prop =	18,816	21,504	24,192	26,880	29,568	32,256	34,944	37,632	40,320	43,008
Fluid =	55,821	63,795	71,770	79,744	87,718	95,693	103,667	111,642	119,616	127,590
Estimated Frac Costs (M$) =	120	130	141	152	162	173	184	194	205	216

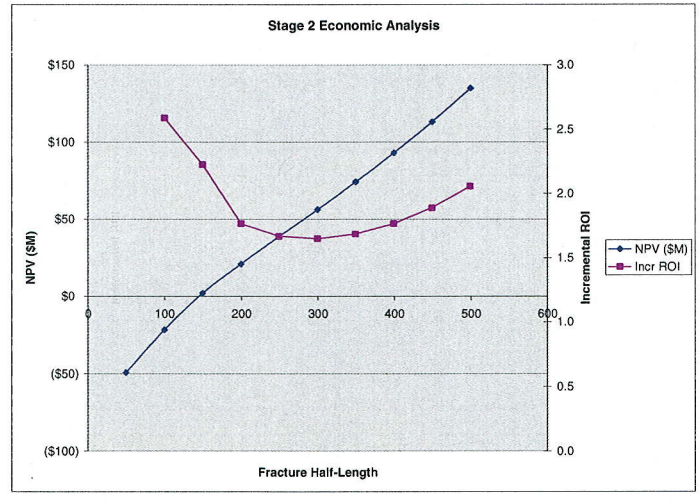
Swift

Data Format	Percent
Design Driver	ZGPAY
Design Direction	Proppant
Pad Format	Percent
Equivalent Zone ID	3
Fluid Parameters(gal/ft)	3000
Proppant Parameters(lb/ft)	2800
Total Fluid Vol (gal)	177209
Total Proppant (lbs)	134400
OGIP (BCF)	0.317

Steps	1	2	3	4	5	6
Fluid Type	Pad	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater
PPG	Pad	0.5	1	1.5	2	2.5
Fluid Volume (gal)	44302.22	71680	26880	11946.67	4480	17920
% Total Fluid	25	0	0	0	0	0
Proppant Weight (lbs)	0	35840	26880	17920	8960	44800
% Total Prop	0	20	15	10	5	25
Prop Type	0	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed
Rate	0	0	0	0	0	0

Plotted Data





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Stage 3 Production

Zone	Zone Start	Zone Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
25	6724	6733.5	4	0.1101	0.46	0.003753	0.24	2916	178	20	0.4404	0.237816	693.4715	42.33125	1	9.5
23	6770	6779	6.5	0.1108	0.38	0.010722	0.45	2935	178	20	0.7202	0.446524	1310.548	79.48127	1	9
21	6801	6819.5	10.5	0.1077	0.46	0.004174	0.61	2953	179	20	1.13085	0.610659	1803.276	109.308	1	18.5
19	6825.5	6892	54.5	0.1207	0.42	0.013069	3.83	2984	180	20	6.57815	3.815327	11384.94	686.7589	1	66.5

Zone	Zn Start	Zn Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
Total	6724	6892	75.5	0.12	0.42	0.0317	5.13	2972.85	178.75	20.0	8.87	5.11	15192.23	917.88	1.00	103.50

Lf =	0	50	100	150	200	250	300	350	400	450	500
Qi / IP30 =	20.93	165.78	217.97	267.17	318.12	373.34	435.05	505.73	588.55	687.92	810.30

Economic Frac Data

	NPV ($M)	Incr ROI	Frac Cost ($M)	Incr ROI Plot Point
50	$572		258	
100	$683	4	289	75
150	$760	3	319	125
200	$822	2	350	175
250	$877	2	380	225
300	$927	2	411	275
350	$974	2	441	325
400	$1,021	2	472	375
450	$1,068	2	502	425
500	$1,116	2	533	475

Costs		Rockies	
Fixed	$45,000	Bauxite Frac	
Prop	$200	/Mlbs	400
Fluid	$450	/Mgal	380
Actual Lf	200 ft		

Lf =	50	100	150	200	250	300	350	400	450	500
Propant =	271688	310500	349313	388125	426938	465750	504563	543375	582188	621000
Fluid =	353395	403880	454365	504850	555335	605820	656305	706790	757275	807760

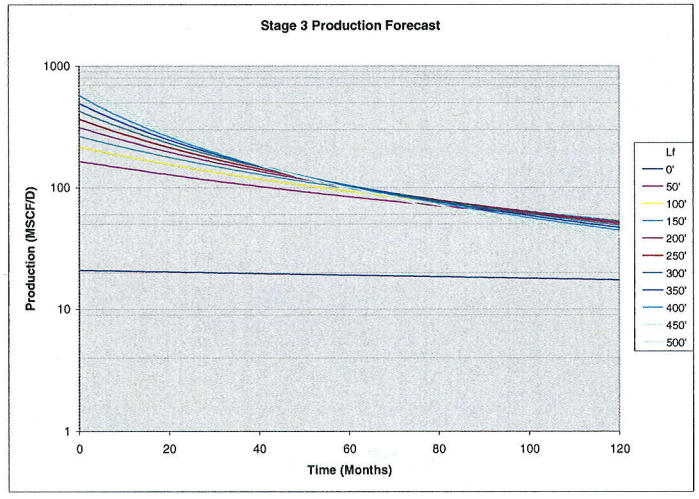
Lf =	50	100	150	200	250	300	350	400	450	500
Prop =	54,338	62,100	69,863	77,625	85,388	93,150	100,913	108,675	116,438	124,200
Fluid =	159,028	181,746	204,464	227,183	249,901	272,619	295,337	318,056	340,774	363,492
Estimated Frac Costs (M$) =	258	289	319	350	380	411	441	472	502	533

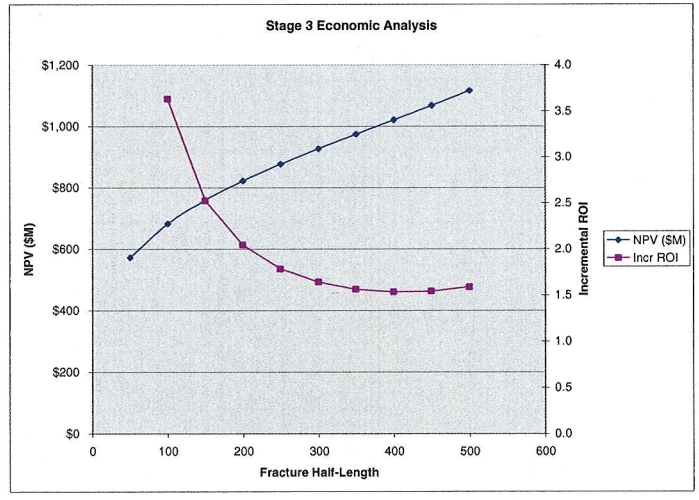
Swift

Data Format	Percent
Design Driver	ZGPAY
Design Direction	Proppant
Pad Format	Percent
Equivalent Zone ID	5
Fluid Parameters(gal/ft)	5000
Proppant Parameters(lb/ft)	5000
Total Fluid Vol (gal)	504850
Total Proppant (lbs)	388125
OGIP (BCF)	0.835

Steps	1	2	3	4	5	6	7
Fluid Type	Pad	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater
PPG	Pad	0.5	1	1.5	2	2.5	3
Fluid Volume (gal)	126212.5	207000	77625	34500	12937.5	20700	25875
% Total Fluid	25	0	0	0	0	0	0
Proppant Weight (lbs)	0	103500	77625	51750	25875	51750	77625
% Total Prop	0	20	15	10	5	10	15
Prop Type	0	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed
Rate	0	0	0	0	0	0	0

Plotted Data





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Stage 4 Production

Zone	Zone Start	Zone Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
35	6550	6559	9	0.1264	0.33	0.011345	0.77	2840	175	20	1.1376	0.762192	2164.625	133.3836	1	9
33	6570	6580	0.5	0.0794	0.43	0.000267	0.02	2849	175	20	0.0397	0.022629	64.47002	3.960075	1	10
31	6598	6603.5	4	0.1244	0.33	0.010269	0.34	2859	176	20	0.4976	0.333392	953.1677	58.67699	1	5.5
29	6611	6618	2.5	0.0867	0.43	0.001588	0.12	2866	176	20	0.21675	0.123548	354.0871	21.74436	1	7
27	6659.5	6685	7.5	0.0792	0.38	0.001422	0.37	2895	177	20	0.594	0.36828	1066.171	65.18556	1	25.5

Zone	Zn Start	Zn Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
Total	6550	6685	23.5	0.11	0.35	0.0249	1.62	2858.64	175.80	20.0	2.49	1.61	4602.52	282.95	1.00	57.00

Lf =	0	50	100	150	200	250	300	350	400	450	500
QI / IP30 =	3.71	29.42	38.68	47.41	56.45	66.25	77.20	89.74	104.43	122.06	143.78

Economic Frac Data

	NPV ($M)	Incr ROI	Frac Cost ($M)	Incr ROI Plot Point
50	($6)		113	
100	$23	3	123	75
150	$45	2	133	125
200	$62	2	143	175
250	$78	2	152	225
300	$93	2	162	275
350	$108	2	172	325
400	$123	2	182	375
450	$139	2	191	425
500	$156	2	201	475

Costs			Rockies	
Fixed	$45,000		Bauxite Frac	
Prop	$200	/Mlbs	400	
Fluid	$450	/Mgal	380	
Actual Lf	200 ft			

Lf =	50	100	150	200	250	300	350	400	450	500
Propant =	101745	116280	130815	145350	159885	174420	188955	203490	218025	232560
Fluid =	106556	121779	137001	152224	167446	182668	197891	213113	228335	243558

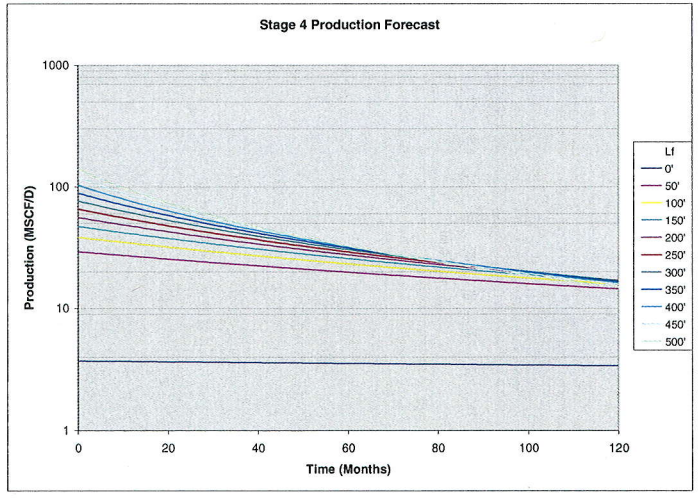
Lf =	50	100	150	200	250	300	350	400	450	500
Prop =	20,349	23,256	26,163	29,070	31,977	34,884	37,791	40,698	43,605	46,512
Fluid =	47,950	54,800	61,651	68,501	75,351	82,201	89,051	95,901	102,751	109,601
Estimated Frac Costs (M$) =	113	123	133	143	152	162	172	182	191	201

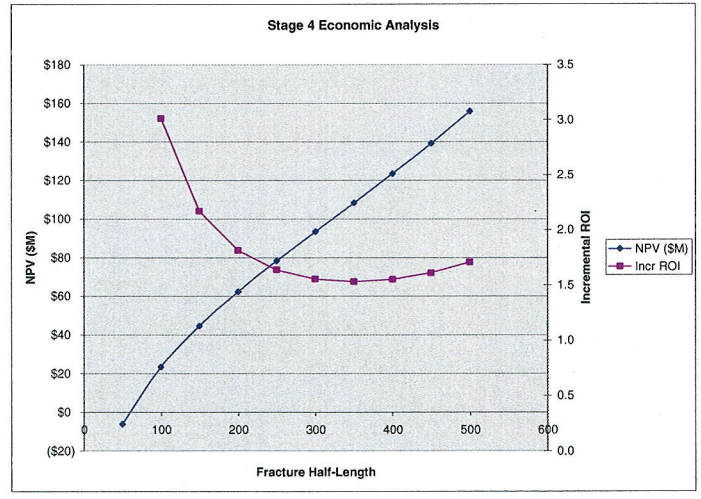
Swift

Data Format	Percent
Design Driver	ZGPAY
Design Direction	Proppant
Pad Format	Percent
Equivalent Zone ID	2
Fluid Parameters(gal/ft)	1400
Proppant Parameters(lb/ft)	3000
Total Fluid Vol (gal)	152224
Total Proppant (lbs)	145350
OGIP (BCF)	0.257

Steps	1	2	3	4	5	6	7
Fluid Type	Pad	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater
PPG	Pad	0.5	1	1.5	2	2.5	3
Fluid Volume (gal)	22833.53	51300	34200	22800	8550	6840	5700
% Total Fluid	15	0	0	0	0	0	0
Proppant Weight (lbs)	0	25650	34200	34200	17100	17100	17100
% Total Prop	0	15	20	20	10	10	10
Prop Type	0	20/40 White	20/40 White	20/40 White	20/40 White	20/40 White	20/40 White
Rate	0	20	20	20	20	20	20

Plotted Data





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Stage 5 Production

Zone	Zone Start	Zone Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
55	6244.5	6262.5	1.5	0.0992	0.49	0.000484	0.08	2712	170	20	0.1488	0.075888	205.8083	12.90096	1	18
53	6279	6291.5	2	0.0915	0.46	0.000776	0.1	2724	171	20	0.183	0.09882	269.1857	16.89822	1	12.5
51	6296.5	6351	9	0.1228	0.48	0.003748	0.58	2750	172	20	1.1052	0.574704	1580.436	98.84909	1	54.5
49	6362.5	6379.5	8.5	0.1111	0.47	0.004389	0.5	2762	172	20	0.94435	0.500506	1382.396	86.08695	1	17
47	6389	6392.5	0.5	0.0884	0.45	0.000481	0.02	2768	172	20	0.0442	0.02431	67.29008	4.18132	1	3.5
45	6396	6408.5	0.5	0.0782	0.43	0.000207	0.02	2775	173	20	0.0391	0.022287	61.84643	3.855651	1	12.5
43	6427	6447.5	8.5	0.1181	0.35	0.010648	0.65	2792	173	20	1.00385	0.652503	1821.787	112.8829	1	20.5
41	6453.5	6456.5	1	0.0815	0.42	0.000738	0.05	2796	173	20	0.0815	0.04727	132.1669	8.17771	1	3
39	6461.5	6498.5	21	0.1252	0.44	0.010274	1.48	2814	174	20	2.6292	1.472352	4143.199	256.1892	1	37
37	6513	6527	8.5	0.0949	0.39	0.005638	0.49	2826	174	20	0.80665	0.492057	1390.552	85.61783	1	14

Zone	Zn Start	Zn Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
Total	6244.5	6527	61	0.11	0.43	0.0374	3.97	2791.09	172.40	20.0	6.99	3.96	11054.67	685.64	1.00	192.50

Lf =	0	50	100	150	200	250	300	350	400	450	500
Qi / IP30 =	9.73	77.08	101.34	124.22	147.91	173.59	202.28	235.14	273.65	319.85	376.75

Economic Frac Data

	NPV ($M)	Incr ROI	Frac Cost ($M)	Incr ROI Plot Point
50	$170		253	
100	$234	2	282	75
150	$285	2	312	125
200	$323	1	342	175
250	$356	1	371	225
300	$387	1	401	275
350	$417	1	431	325
400	$447	1	461	375
450	$479	1	490	425
500	$513	1	520	475

Costs		Rockies	
Fixed	$45,000	Bauxite Frac	
Prop	$200	/Mlbs	400
Fluid	$450	/Mgal	380
Actual Lf	200 ft		

Lf =	50	100	150	200	250	300	350	400	450	500
Propant =	424463	485100	545738	606375	667013	727650	788288	848925	909563	970200
Fluid =	273026	312030	351034	390038	429041	468045	507049	546053	585056	624060

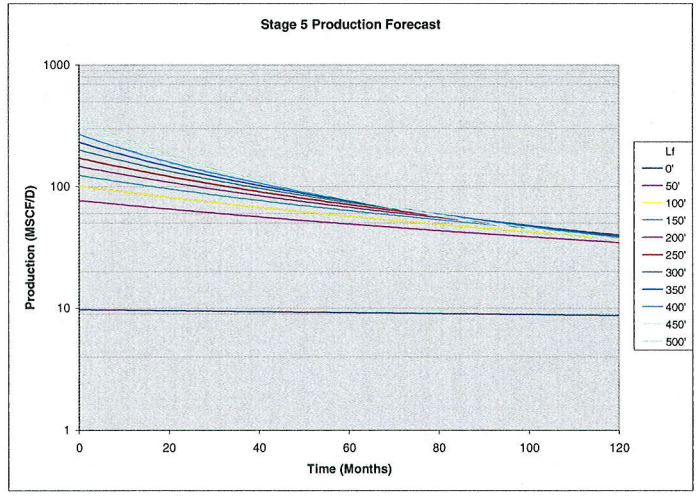
Lf =	50	100	150	200	250	300	350	400	450	500
Prop =	84,893	97,020	109,148	121,275	133,403	145,530	157,658	169,785	181,913	194,040
Fluid =	122,862	140,414	157,965	175,517	193,069	210,620	228,172	245,724	263,275	280,827
Estimated Frac Costs (M$) =	253	282	312	342	371	401	431	461	490	520

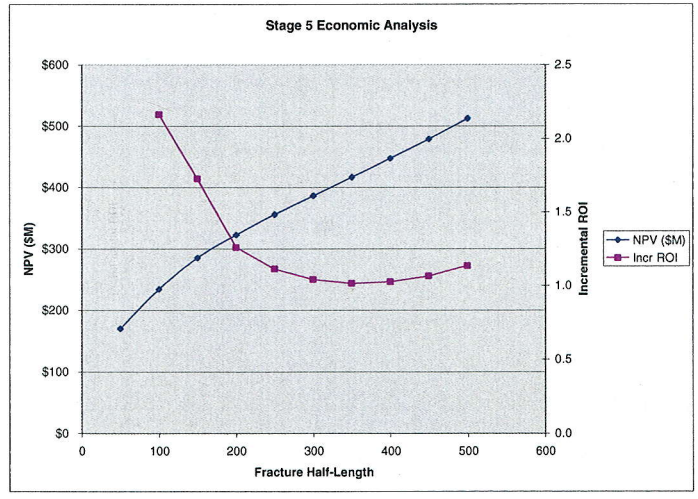
Swift

Data Format	Percent
Design Driver	ZGPAY
Design Direction	Proppant
Pad Format	Percent
Equivalent Zone ID	4
Fluid Parameters(gal/ft)	4500
Proppant Parameters(lb/ft)	3500
Total Fluid Vol (gal)	390038
Total Proppant (lbs)	606375
OGIP (BCF)	0.622

Steps	1	2	3	4	5	6	7	8	9	10	11
Fluid Type	Pad	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater
PPG	Pad	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
Fluid Volume (gal)	19501.88	134750	33687.5	67375	33687.5	40425	11229.17	19250	8421.875	14972.22	6737.5
% Total Fluid	5	0	0	0	0	0	0	0	0	0	0
Proppant Weight (lbs)	0	67375	33687.5	101062.5	67375	101062.5	33687.5	67375	33687.5	67375	33687.5
% Total Prop	0	10	5	15	10	15	5	10	5	10	5
Prop Type	0	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic
Rate	15	45	45	45	45	45	45	45	45	45	45

Plotted Data





DD 31-15A
THURSTON ENERGY
UINTA, UT
API Number: 12345678901234

Stage 6 Production

Zone	Zone Start	Zone Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
67	6004.5	6061.5	23.5	0.1169	0.5	0.002835	1.37	2625	167	20	2.74715	1.373575	3605.634	229.387	1	57
65	6071.5	6089	10.5	0.1101	0.49	0.003304	0.59	2637	167	20	1.15605	0.589586	1554.737	98.46078	1	17.5
63	6108.5	6128.5	11	0.1101	0.47	0.003783	0.64	2654	168	20	1.2111	0.641883	1703.557	107.8363	1	20
61	6143.5	6177	5	0.0963	0.46	0.001012	0.26	2675	169	20	0.4815	0.26001	695.5268	43.94169	1	33.5
59	6196.5	6199	2	0.0102	0.523	0.000283	0.25	2684	169	20	0.0204	0.009731	26.11747	1.644505	1	2.5
57	6202.5	6211.5	3	0.0809	0.4	0.000964	0.14	2690	169	20	0.2427	0.14562	391.7178	24.60978	1	9

Zone	Zn Start	Zn Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
Total	6004.5	6211.5	55	0.11	0.48	0.0122	3.25	2641.13	168.17	20.0	5.86	3.02	7977.29	505.88	1.00	139.50

Lf =	0	50	100	150	200	250	300	350	400	450	500
QI / IP30 =	3.17	25.08	32.97	40.42	48.12	56.48	65.81	76.50	89.03	104.06	122.58

Economic Frac Data

	NPV ($M)	Incr ROI	Frac Cost ($M)	Incr ROI Plot Point
50	($93)		208	
100	($66)	1	231	75
150	($47)	1	254	125
200	($31)	1	277	175
250	($16)	1	301	225
300	($1)	1	324	275
350	$15	1	347	325
400	$32	1	370	375
450	$52	1	394	425
500	$74	1	417	475

Costs		Rockies	
Fixed	$45,000	Bauxite Frac	
Prop	$200	/Mlbs	400
Fluid	$450	/Mgal	380
Actual Lf	200 ft		

Lf =	50	100	150	200	250	300	350	400	450	500
Propant =	205065	234360	263655	292950	322245	351540	380835	410130	439425	468720
Fluid =	270382	309008	347634	386260	424886	463512	502138	540764	579390	618016

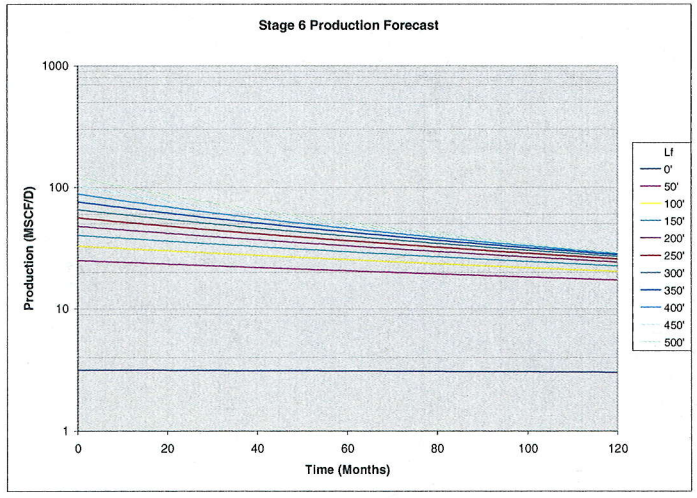
Lf =	50	100	150	200	250	300	350	400	450	500
Prop =	41,013	46,872	52,731	58,590	64,449	70,308	76,167	82,026	87,885	93,744
Fluid =	121,672	139,054	156,435	173,817	191,199	208,580	225,962	243,344	260,726	278,107
Estimated Frac Costs (M$) =	208	231	254	277	301	324	347	370	394	417

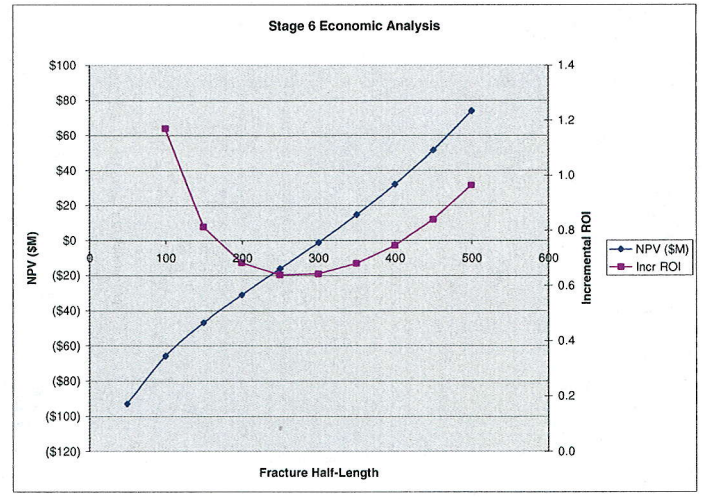
Swift

Data Format	Percent
Design Driver	ZGPAY
Design Direction	Proppant
Pad Format	Percent
Equivalent Zone ID	3
Fluid Parameters(gal/ft)	3000
Proppant Parameters(lb/ft)	2800
Total Fluid Vol (gal)	386260
Total Proppant (lbs)	292950
OGIP (BCF)	0.457

Steps	1	2	3	4	5	6
Fluid Type	Pad	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater
PPG	Pad	0.5	1	1.5	2	2.5
Fluid Volume (gal)	96565	156240	58590	26040	9765	39060
% Total Fluid	25	0	0	0	0	0
Proppant Weight (lbs)	0	78120	58590	39060	19530	97650
% Total Prop	0	20	15	10	5	25
Prop Type	0	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed
Rate	0	0	0	0	0	0

Plotted Data





DD 31-15A
THURSTON ENERGY
UINTA, UT
API Number: 12345678901234

Stage 7 Production

Zone	Zone Start	Zone Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
71	5812	5849	16	0.1264	0.51	0.003464	1	2533	164	20	2.0224	0.990976	2510.142	162.5201	1	37
69	5940.5	5976	21.5	0.1276	0.5	0.003795	1.36	2588	166	20	2.7434	1.3717	3549.96	227.7022	1	35.5

Zone	Zn Start	Zn Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
Total	5812	5976	37.5	0.13	0.50	0.0073	2.36	2564.93	165.00	20.0	4.77	2.36	6060.10	390.22	1.00	72.50

Lf =	0	50	100	150	200	250	300	350	400	450	500
QI / IP30 =	2.73	21.66	28.48	34.90	41.56	48.78	56.84	66.07	76.89	89.87	105.86

Economic Frac Data

	NPV ($M)	Incr ROI	Frac Cost ($M)	Incr ROI Plot Point
50	($51)		130	
100	($20)	3	142	75
150	$3	2	154	125
200	$22	2	166	175
250	$41	2	178	225
300	$59	2	190	275
350	$78	2	202	325
400	$98	2	214	375
450	$119	2	226	425
500	$142	2	238	475

Costs		Rockies	
Fixed	$45,000	Bauxite Frac	
Prop	$200	/Mlbs	400
Fluid	$450	/Mgal	380
Actual Lf	200 ft		

Lf =	50	100	150	200	250	300	350	400	450	500
Propant =	106575	121800	137025	152250	167475	182700	197925	213150	228375	243600
Fluid =	140521	160596	180670	200744	220819	240893	260968	281042	301117	321191

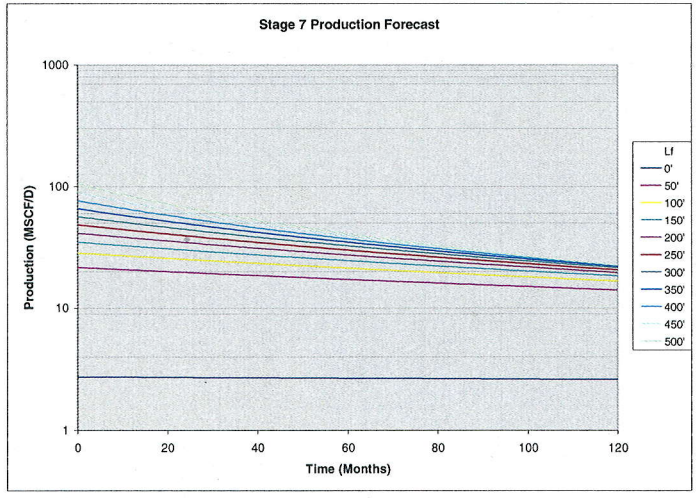
Lf =	50	100	150	200	250	300	350	400	450	500
Prop =	21,315	24,360	27,405	30,450	33,495	36,540	39,585	42,630	45,675	48,720
Fluid =	63,235	72,268	81,302	90,335	99,369	108,402	117,436	126,469	135,503	144,536
Estimated Frac Costs (M$) =	130	142	154	166	178	190	202	214	226	238

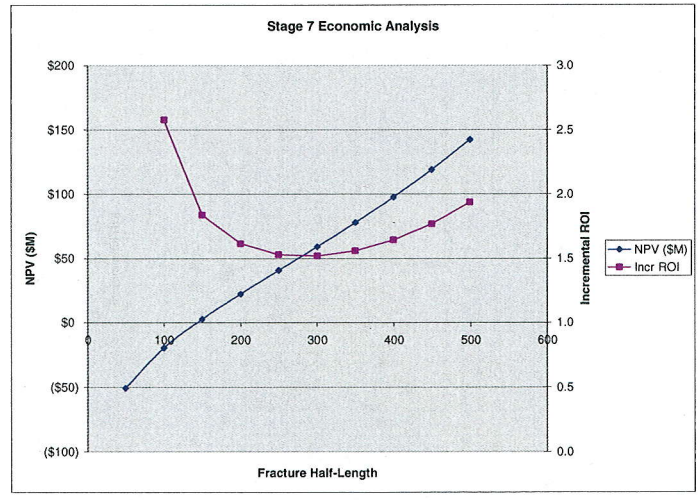
Swift

Data Format	Percent
Design Driver	ZGPAY
Design Direction	Proppant
Pad Format	Percent
Equivalent Zone ID	3
Fluid Parameters(gal/ft)	3000
Proppant Parameters(lb/ft)	2800
Total Fluid Vol (gal)	200744
Total Proppant (lbs)	152250
OGIP (BCF)	0.350

Steps	1	2	3	4	5	6
Fluid Type	Pad	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater
PPG	Pad	0.5	1	1.5	2	2.5
Fluid Volume (gal)	50186.11	81200	30450	13533.33	5075	20300
% Total Fluid	25	0	0	0	0	0
Proppant Weight (lbs)	0	40600	30450	20300	10150	50750
% Total Prop	0	20	15	10	5	25
Prop Type	0	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed	Sand w/ SandWed
Rate	0	0	0	0	0	0

Plotted Data





DD 31-15A
THURSTON ENERGY
UINTA, UT
API Number: 12345678901234

Stage 8 Production

Zone	Zone Start	Zone Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
73	5502.5	5526.5	7	0.1234	0.51	0.001478	0.43	2393	158	20	0.8638	0.423262	1012.866	66.8754	1	24

Zone	*Zn Start*	*Zn Stop*	*Net Pay*	*Porosity*	*Sw*	*khy*	*HPV*	*Pi*	*Temp*	*Area*	*Φ-h*	*Φ-hSg*	*Φ-hSg-Pi*	*Φ-hSg-T*	*Zn Name*	*ZGPAY*
Total	5502.5	5526.5	7	0.12	0.51	0.0015	0.43	2393	158.00	20.0	0.86	0.42	1012.87	66.88	1.00	24.00

Lf =	0	50	100	150	200	250	300	350	400	450	500
Qi / IP30 =	0.19	1.47	1.93	2.37	2.82	3.31	3.85	4.48	5.21	6.09	7.17

Economic Frac Data

	NPV ($M)	Incr ROI	Frac Cost ($M)	Incr ROI Plot Point
50	($82)		82	
100	($88)	-1	88	75
150	($93)	-1	93	125
200	($98)	-1	98	175
250	($103)	-1	103	225
300	($109)	-1	109	275
350	($114)	-1	114	325
400	($119)	-1	119	375
450	($125)	-1	125	425
500	($130)	-1	130	475

Costs		**Rockies**	
Fixed	**$45,000**	Bauxite Frac	
Prop	**$200**	/Mlbs	400
Fluid	**$450**	/Mgal	380
Actual Lf	**200 ft**		

Lf =	*50*	*100*	*150*	*200*	*250*	*300*	*350*	*400*	*450*	*500*
Propant =	53760	61440	69120	76800	84480	92160	99840	107520	115200	122880
Fluid =	58800	67200	75600	84000	92400	100800	109200	117600	126000	134400

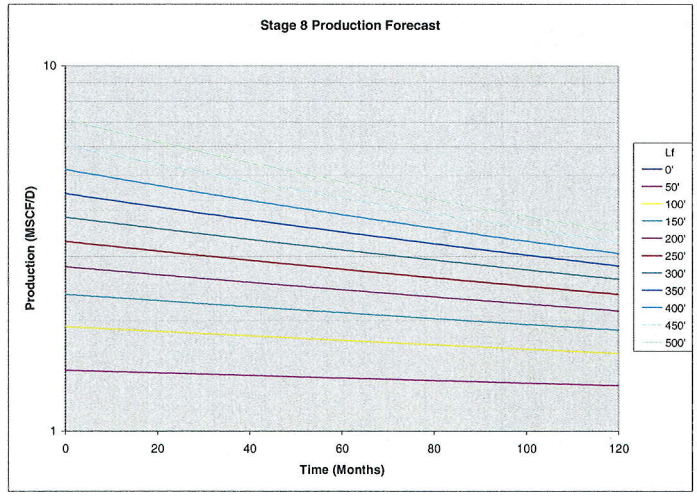
Lf =	*50*	*100*	*150*	*200*	*250*	*300*	*350*	*400*	*450*	*500*
Prop =	10,752	12,288	13,824	15,360	16,896	18,432	19,968	21,504	23,040	24,576
Fluid =	26,460	30,240	34,020	37,800	41,580	45,360	49,140	52,920	56,700	60,480
Estimated Frac Costs (M$) =	82	88	93	98	103	109	114	119	125	130

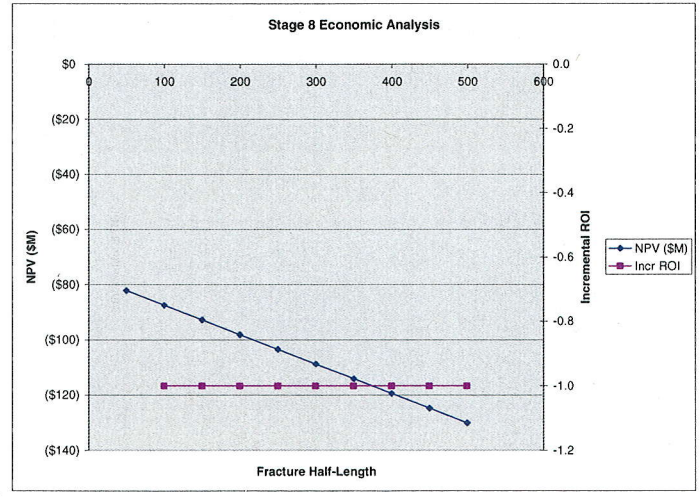
Swift

Data Format	Percent
Design Driver	ZGPAY
Design Direction	Proppant
Pad Format	Percent
Equivalent Zone ID	1
Fluid Parameters(gal/ft)	2000
Proppant Parameters(lb/ft)	4000
Total Fluid Vol (gal)	84000
Total Proppant (lbs)	76800
OGIP (BCF)	0.060

Steps	1	2	3	4	5
Fluid Type	Pad	Slickwater	Slickwater	Slickwater	Slickwater
PPG	Pad	0.5	1	1.5	2
Fluid Volume (gal)	16800	19200	24000	9600	14400
% Total Fluid	20	0	0	0	0
Proppant Weight (lbs)	0	9600	24000	14400	28800
% Total Prop	0	10	25	15	30
Prop Type	0	20/40 White	20/40 White	20/40 White	20/40 White
Rate	0	10	10	10	10

Plotted Data





DD 31-15A
THURSTON ENERGY
UINTA, UT
API Number: 12345678901234

Stage 9 Production

Zone	Zone Start	Zone Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
79	4200.5	4230.5	18	0.1033	0.44	0.004008	1.03	1832	138	20	1.8594	1.041264	1907.596	143.6944	1	30
77	4295.5	4328.5	31.5	0.1093	0.37	0.013215	2.18	1874	139	20	3.44295	2.169059	4064.816	301.4991	1	33
75	4388.5	4412.5	21.5	0.1163	0.41	0.010828	1.47	1911	141	20	2.50045	1.475266	2819.232	208.0124	1	24

Zone	Zn Start	Zn Stop	Net Pay	Porosity	Sw	khy	HPV	Pi	Temp	Area	Φ-h	Φ-hSg	Φ-hSg-Pi	Φ-hSg-T	Zn Name	ZGPAY
Total	4200.5	4412.5	71	0.11	0.40	0.0281	4.68	1876.32	139.33	20.0	7.80	4.69	8791.64	653.21	1.00	87.00

Lf =	0	50	100	150	200	250	300	350	400	450	500
Qi / IP30 =	8.37	66.29	87.16	106.84	127.22	149.30	173.98	202.24	235.36	275.10	324.04

Economic Frac Data

	NPV ($M)	Incr ROI	Frac Cost ($M)	Incr ROI Plot Point
50	$216		139	
100	$286	5	152	75
150	$338	4	166	125
200	$383	3	179	175
250	$424	3	193	225
300	$463	3	206	275
350	$501	3	219	325
400	$539	3	233	375
450	$579	3	246	425
500	$620	3	260	475

Costs		Rockies	
Fixed	$45,000	Bauxite Frac	
Prop	$200 /Mlbs	400	
Fluid	$450 /Mgal	380	
Actual Lf	200 ft		

Lf =	50	100	150	200	250	300	350	400	450	500
Propant =	191835	219240	246645	274050	301455	328860	356265	383670	411075	438480
Fluid =	123394	141021	158649	176277	193904	211532	229160	246787	264415	282043

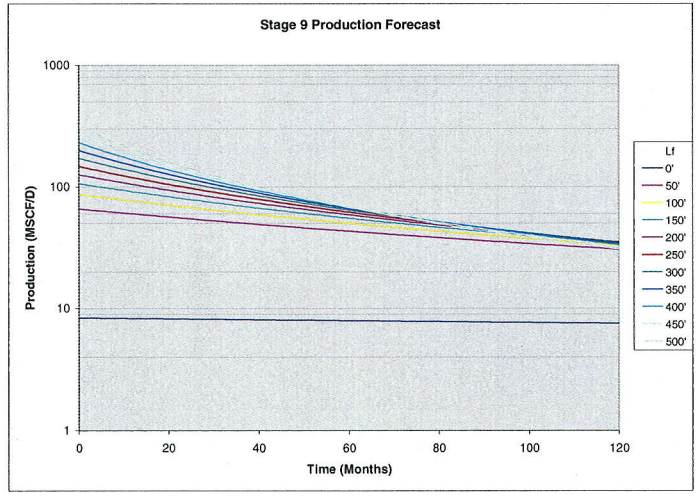
Lf =	50	100	150	200	250	300	350	400	450	500
Prop =	38,367	43,848	49,329	54,810	60,291	65,772	71,253	76,734	82,215	87,696
Fluid =	55,527	63,460	71,392	79,325	87,257	95,189	103,122	111,054	118,987	126,919
Estimated Frac Costs (M$) =	139	152	166	179	193	206	219	233	246	260

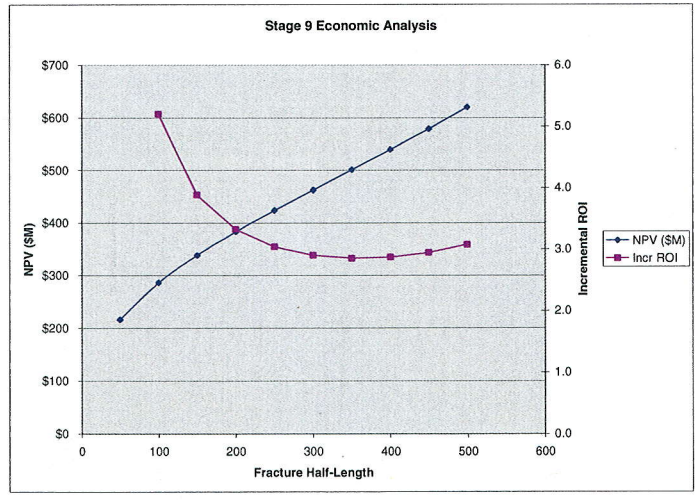
Swift

Data Format	Percent
Design Driver	ZGPAY
Design Direction	Proppant
Pad Format	Percent
Equivalent Zone ID	4
Fluid Parameters(gal/ft)	4500
Proppant Parameters(lb/ft)	3500
Total Fluid Vol (gal)	176277
Total Proppant (lbs)	274050
OGIP (BCF)	0.543

Steps	1	2	3	4	5	6	7	8	9	10	11
Fluid Type	Pad	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater	Slickwater
PPG	Pad	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
Fluid Volume (gal)	8813.838	60900	15225	30450	15225	18270	5075	8700	3806.25	6766.667	3045
% Total Fluid	5	0	0	0	0	0	0	0	0	0	0
Proppant Weight (lbs)	0	30450	15225	45675	30450	45675	15225	30450	15225	30450	15225
% Total Prop	0	10	5	15	10	15	5	10	5	10	5
Prop Type	0	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic	Ceramic
Rate	15	45	45	45	45	45	45	45	45	45	45

Plotted Data





UTAH DEPARTMENT OF NATURAL RESOURCES
Division of Oil, Gas & Mining
Oil and Gas Program
1594 West North Temple, Suite 1210, Box 145801
Salt Lake City, UT 84114-5801
(801) 538-5340 Phone
(801) 359-3940 Fax

NOTICE OF VIOLATION
STATE OF UTAH
OIL AND GAS CONSERVATION ACT

TO THE FOLLOWING OPERATOR:

Operator Name: THURSTON ENERGY OPERATING CO., LLC

Mailing Address: Attn: Mr. Ralph Curton Jr.

4925 Greenville Ave, Ste 840

Dallas, TX 75206

Well(s) or Site(s):1) DIRTY DEVIL 31-15A API #: 43-047-31726

9S 24E 15

Date and Time of Inspection/Violation: January 31, 2013

Under the authority of the Utah Oil and Gas Conservation Act, Section 40-6 et. Seq., Utah Code Annotated, 1953, as amended, the undersigned authorized representative of the Division of Oil, Gas and Mining (Division) has conducted an inspection of the above described site and/or records on the above date and has found alleged violation(s) of the act, rules or permit conditions as described below.

Description of Violation(s):

Rule R649-3-36, *Shut-in and Temporarily Abandoned Wells* – According to Rule R649-3-36, the operator is required to supply the Division with reasons for extended SI/TA, the length of time for extended SI/TA and proof of well bore integrity for every well SI/TA over 12 consecutive months. After 5 years of continued SI/TA, the wells are to be plugged unless good cause is supplied to the Division for extended SI/TA in addition to the required information just mentioned.

Rule R649-3-4.3 *Bonding* – If the division finds that a well subject to this bonding rule is in violation of Rule R649-3-36, *Shut –in and Temporarily Abandoned Wells*, the division shall require a bond amount for the applicable well in the amount of actual plugging and site restorations costs.

Rule R649-3-4.41 *Bonding* – Within 30 days of notification by the division, the operator shall submit to the division an estimate of plugging and site restoration costs for division review and approval.

The Division has initiated several contacts with Thurston Energy Operating Co., LLC. (Thurston) requesting required documents and action per R649-3-36. The well listed has previously been issued SI/TA Notices and Notices of Violation without the required work being accomplished or information submitted to bring this well into compliance. In meetings with the Division, Thurston indicated the well needed to and would be plugged. No action has been taken to plug this well.

This well is in violation of R-649-3-36 as listed above. The Division requires Thurston to put up full cost bonding for the well in violation above per R649-3-4. It is also mandatory that Thurston submit all documentation as required by R649-3-36 concerning shut-in and temporarily abandoned wells.

UTAH DEPARTMENT OF NATURAL RESOURCES
Division of Oil, Gas & Mining
Oil and Gas Program
1594 West North Temple, Suite 1210, Box 145801
Salt Lake City, UT 84114-5801
(801) 538-5340 Phone
(801) 359-3940 Fax

Operator Name: THURSTON ENERGY OPERATING CO., LLC

Well(s) or Site(s):1) DIRTY DEVIL 31-15A API #: 43-047-31726

Immediate Action: For the wells subject to this notice, Thurston shall fulfill full cost bonding requirements for each well. Thurston shall also submit all information as required by R649-3-36 or plug and abandon or place the well(s) on production.

* **Fines may be levied up to $10,000.00 per day for every well in violation given the authority provided under U.C.A 40-6-11, part 4**

This notice shall remain in effect until it is modified, terminated, or vacated by a written notice of an authorized representative of the director of the Division of Oil, Gas and Mining. Failure to comply with this notice will result in the Division pursuing further actions against said operator. Further actions may include initiation of agency actions to order full cost bonding and plugging and abandonment of wells and requests for bond forfeiture and civil penalties.

Compliance Deadline: March 15, 2013

Date of Service Mailing: February 5, 2013 **Certified Mail No.:** 7011 0110 0001 3568 2660

Division Representative Signature

Operator Representative (if presented in person)

cc: Compliance File
Well Files
SITLA

1/2013

UTAH DEPARTMENT OF NATURAL RESOURCES

Division of Oil, Gas & Mining

Oil and Gas Program

1594 West North Temple, Suite 1210, Box 145801

Salt Lake City, Utah 84114-5801

(801) 538-5340 Phone

(801) 359-3940 Fax

NOTICE OF VIOLATION

STATE OF UTAH

OIL AND GAS CONSERVATION ACT

****

To the following operator: 9S 24E 15

Name: THURSTON ENERGY OPERATING COMPANY, LLC

Well(s) or Site(s): 1.) DIRTY DEVIL 31-15A API #: 43-047-31726

2.) DIRTY DEVIL UNIT 11-29 API #: 43-047-31617

Date and Time of Inspection/Violation: April 11, 2011

Mailing Address: Attn: Ralph Curton Jr.

1222 Yates Drive

Longview, TX 75601-4667

Under the authority of the Utah Oil and Gas Conservation Act, Section 40-6 et. Seq., Utah Code Annotated, 1953, as amended, the undersigned authorized representative of the Division of Oil, Gas and Mining (Division) has conducted an inspection of the above described site and/or records on the above date and has found alleged violation(s) of the act, rules or permit conditions as described below.

Description of Violation(s):

Rule R649-3-36, *Shut-in and Temporarily Abandoned Wells* –According to Rule R649-3-36, the operator is required to supply the Division with reasons for extended SI/TA, the length of time for extended SI/TA and proof of well bore integrity for every well SI/TA over 12 consecutive months. After 5 years of continued SI/TA, the wells are to be plugged unless good cause is supplied to the Division for extended SI/TA in addition to the required information just mentioned.

The Division notified the previous operator, Dark Horse Exploration, on April 16, 2004, by certified mail about the Dirty Devil 31-15A wells non-compliance issue. When Thurston Energy Operating Company, LLC ("Thurston") assumed ownership of the well, current obligations concerning SI/TA compliance was also assumed. The Division has initiated several contacts with Thurston requesting required documents and action per R649-3-36. On March 29, 2006, the Division notified Thurston by certified mail that the Dirty Devil 31-15A was in non-compliance for SI/TA status. After substantial time had passed, a second notice was sent out via certified mail on September 3, 2008, addressing the wells non-compliance with requirements for SI/TA status. After not getting any response from Thurston, an NOV was issued on January 22, 2009. Thurston replied to the NOV on February 5, 2010, and requested 120 days to conduct tests on said well. To date the well has not shown any evidence of anything having been done to move this well out of noncompliance.

For the Dirty Devil Unit 11-29, the Division has sent notices of non-compliance to Thurston on the following occasions: On September 3, 2008, a first notice was sent. On February 25, 2009, a second notice was sent. Thurston responded on February 5, 2010, stating the well would be put on production within 90 days. On October 22, 2010, a sundry was received by the Division from Thurston, stating this well had returned to production effective October 5, 2010. Ample time has passed since this sundry was received and the Division has not seen or received any supporting data or reports concerning this matter. Division records do not show this well to be producing.

Action: For the wells subject to this notice, Thurston Energy Operating Company, LLC shall either submit the information required by R649-3-36, plug and abandon or place these wells on production.

This notice shall remain in effect until it is modified, terminated, or vacated by a written notice of an authorized representative of the director of the Division of Oil, Gas and Mining. Failure to comply with this notice will result in the Division pursuing further actions against said operator. Further actions may include initiation of agency actions to order full cost bonding and plugging and abandonment of wells and requests for bond forfeiture and civil penalties.

Compliance Deadline: June 1, 2011

Date of Service Mailing: April 12, 2011

CERTIFIED MAIL NO: 7005 1820 0001 5562 8026

Division's Representative

Operator or Representative
(If presented in person)

cc: LaVonne Garrison, SITLA
Well Files
Operator Compliance File

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

RECEIVED
FEB 07 2013
DIV. OF OIL, GAS & MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: ML 28042
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME: Dirty Devil
8. WELL NAME and NUMBER: 31-15A
9. API NUMBER: 4304731926
10. FIELD AND POOL, OR WILDCAT: BONANZA

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER
2. NAME OF OPERATOR: Thurston Energy Operating Company LLC
3. ADDRESS OF OPERATOR: 4925 Greenville Ave. 840 CITY Dallas STATE TX ZIP 75206 PHONE NUMBER: 469-726-2222
4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0616 FNL 1829 FEL COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 15 9S 24E S STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☑ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THURSTON ENERGY OPERATING WISHES TO PLUG ABOVE REFERENCED WELL
TD=7496'
SURFACE CASING: 9 5/8 36# SET AT 250'/ HOLE SIZE 12 1/2, 200 SKS CLASS G
PRODUCTION CASING: 4 1/2 17# SET AT 7496' HOLE SIZE 7 7/8, 1379 SKS CLASS G
PERFORATIONS:
2686-2690/ 2801-2805/3276-3282-2 SPF- SQEEZED
4308-4320- SQUEEZED 11/6/2010
5514-5524- SQUEEZED 11/7/2010
6281-6446- SQEEZED 11/9/2010
6281-6617- RE- SQUEEZE 6281-6617 11/12/2010- TEST SQEEZE JOBS 11/13/2010-HELD GOOD
7211-7228- OPEN
7283-7320- OPEN
7324-7338- OPEN
7344-7355- OPEN
SQUEEZE OPEN PERFS AND PLUG WELL
THERE IS 1 PRODUCTION TANK STILL ON LOCATION, CLEAR LOCATION AND RE-CLAIM,

NAME (PLEASE PRINT) Chris Curton TITLE President + C.O.O.
SIGNATURE [signature] DATE 1/31/2012

(This space for State use only)

Accepted by the
Utah Division of
Oil, Gas and Mining
For Record Only
*As discussed on phone - A detailed plan for plugging should be submitted via separate Sundry Notice

(5/2000) (See Instructions on Reverse Side)

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-28042

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: Dirty Devil

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER _____

8. WELL NAME and NUMBER: Thurston 31-15A

2. NAME OF OPERATOR: Thurston Energy Operating Company LLC

9. API NUMBER: 4304731726

3. ADDRESS OF OPERATOR: 4925 Greenville Ave. #840 CITY Dallas STATE TX ZIP 75206

PHONE NUMBER: 469-726-2222

10. FIELD AND POOL, OR WILDCAT: Bonanza

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 616' FNL,1829' FEL

COUNTY: Uintah

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 15 T9S 924 E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: _____	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☑ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
_____	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER: _____
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

As per conversation with Dustin Doucet, Thurston will plug said well.
set CIBP @ 7200' with 100' (to 7100')of cement on top, test
set CIBP @ 4400' with 200'(to 4200') of cement on top, total 200' of cement covering top perfs. that were squeezed of on 11/6/10 and 92' of cement above perfs. Test
set CIBP @ 2600' with 100' of cement on top (to 2500') Test
RIH with wire line and shoot perfs. @ 302'-304', circulate well, get to circulate to surface through 9 5/8, RIH with cement retainer and circulate cement to surface through 9 5/8, sting out of retainer, dig out well head and cut off 3' below surface and pump cement to surface through 4 1/2, weld ID plate with weep hole and bury.
Attached will be a copy of Halliburton's squeeze jobs, bond log, and current well bore diagram

COPY SENT TO OPERATOR
Date: 2-20-2013
Initials: KS

NAME (PLEASE PRINT) Chris Carlson TITLE President + COO.

SIGNATURE [signature] DATE 2/13/13

(This space for State use only)

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 2/19/2013
BY: [signature]
* See Conditions of Approval (Attached)

RECEIVED
FEB 15 2013
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

GARY R. HERBERT
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

CONDITIONS OF APPROVAL TO PLUG AND ABANDON WELL

Well Name and Number:	Dirty Devil 31-15A
API Number:	43-047-31726
Operator:	Thurston Energy Operating
Reference Document:	Original Sundry Notice dated February 13, 2013, received by DOGM on February 15, 2013.

Approval Conditions:

1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.
2. All annuli shall be cemented from a minimum depth of 100' to the surface.
3. Surface reclamation shall be done in accordance with R649-3-34 – Well Site Restoration.
4. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.
5. If there are any changes to the procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 (ofc) or 801-733-0983 (home) prior to continuing with the procedure.
6. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.

Dustin K. Doucet
Petroleum Engineer

February 19, 2013
Date

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114 -5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR
OIL, GAS & MINING

Wellbore Diagram

API Well No: 43-047-31726-00-00 **Permit No:** **Well Name/No:** DIRTY DEVIL 31-15A

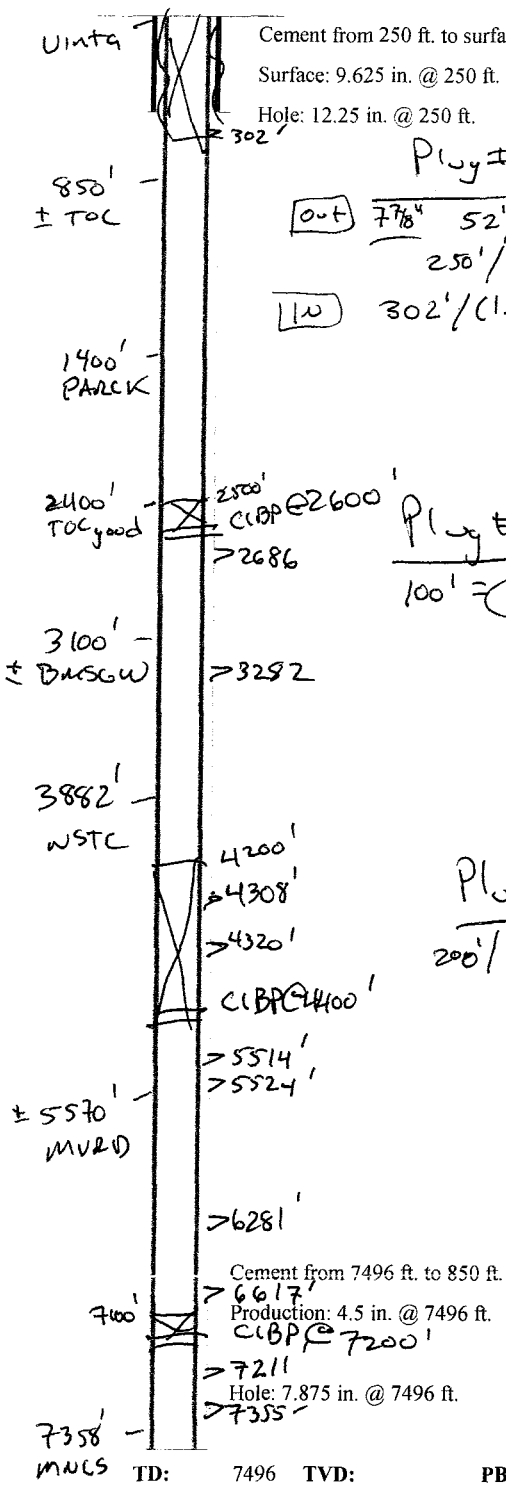
Company Name: THURSTON ENERGY OPERATING

Location: Sec: 15 T: 9S R: 24E Spot: NWNE

Coordinates: X: 653798 Y: 4433902

Field Name: DEVILS PLAYGROUND

County Name: UINTAH



Plug #4

Out: 7⅞" 52'/(1.15)(3.3465) = 14 SX

250'/(1.15)(3.0901) = 70 SX

In: 302'/(1.15)(11.459) = 23 SX

~~107 SX total reqd~~

Plug #3

100' = 8 SX min.

Plug #2

200'/(1.15)(11.459) = 16 SX min.

Plug #1

100'/(1.15)(11.459) = 8 SX minimum

String Information

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)	Capacity (f/cf)
HOL1	250	12.25			
SURF	250	9.625	36		
HOL2	7496	7.875			
PROD	7496	4.5	11.6		11.459

7⅞" x 4½" (10?) → 3.3465

9 5/8" x 4½" → 3.0901

Cement Information

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
PROD	7496	850	G	1379
SURF	250	0	G	200

Perforation Information

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Squeeze
4308	4320			2010
5514	5524			2010
6281	6617			2010
7211	7355			
2686	3282			2010

Formation Information

Formation	Depth
UNTA	0
EVACK	800
PARCK	1400
BMSW	3100
WSTC	3882
MVRD	5570
MNCS	7358

TD: 7496 **TVD:** **PBTD:**

Dai mpletion And Workover Report

DIRTY DEVIL 31-15A

DIRTY DEVIL 31-15A DATE: **11/15/2010**

OPERATOR:	THURSTON ENERGY							
FOREMAN:	Gary Smiley			**Report No.: 45**		**TMD:**		
ENGINEER:	Joe Hess	**SECTION:**	15	**AFE#:**	000	**TVD:**	**DSS:**	45.0
FIELD:	DIRTY DEVIL	**TWP:**	9S	**AFE TMD/TWC:**			**FOOTAGE:**	
COUNTY:	UINTAH	**RANGE:**	24E	**WI/NRI:**		Rig Name/No.: Rig # 3		
STATE:	UTAH	**KBELEV:**	0 ft	**API:**	43-047-31726		**PBTD:**	

STIMULATION DATA

Stage #:	1		Job Date:	Contractor:		Pumped Via:
Job Description:			Gross Interval:	Tracer:		
Fluid Type:		Pad Vol:	Main Body Vol:	Flush Vol:		BLTR Oil/Other/M
# Prop in Frm:		Gas Type:	Gas Vol:			
Min Rate/psi:			Max Rate/psi:		Ave Rate/psi:	
ISIP:		FSIP:	15 min. SI:			
Frac Grad. Initial/ Final:	/			Prop Conc:		

Accident: Env. Incident:

Safety Meeting: High psi lines, working around power swivel, Overhead loads

From	To	Hrs.	Activity Last 24 Hours
6:00	7:00	1.00	Crew travel, start equipment, safety meeting
7:00	7:30	0.50	RU, Swivel, rig pump and lines. Prepare Jt # 199 @ 6483'
7:30	7:40	0.17	Start reverse circulation
7:40	9:03	1.38	Start Swiveling in, clean out Polymer squeeze down to the Composite BP @ 6650'
9:03	9:12	0.15	Tagged BP, Rev out 1.5 time tubing volume.
9:12	9:56	0.73	Psi test casing across entire annulus, Testing perfs that have been squeezed, From 2686' to 6617' w BP @ 6650'. Psi to 850 psi , 15-min loss @ 375 psi but had leak @ pipe rams, fix leak and test again.
9:56	10:15	0.32	PRESURE TO 850 PSI, 5-min loss 250psi, 10 min loss-325 psi, 15-min loss-375 psi- as per orderes, Re-test
10:15	10:35	0.33	PRESURE TO 850 PSI, 5-min loss 150psi, 10 min loss-300 psi, 15-min loss-350 psi
10:35	10:47	0.20	Release psi, start drilling out Composite BP @ 6650'
10:47	15:00	4.22	Thru BP, Clean out to last point of penitration at 7331' w 225 jts in 24 jts out. 30K down weight/34K up weight. Reverse circulate 1.5 time tubing volume, TOOH w bit.
15:00	15:20	0.33	Bit @ surface, Tri-cone rollers a little loose but intact.
15:20	16:30	1.17	RU and start TIH w open ended tubing w NC, Jt, SN(swabbing type, no profile) tubing to surface.
16:30	16:35	0.08	Tubing on bottom @ 7331' ready to set balance cement plug from 7331 to 7080' in the morning.
16:35	6:00	13.42	SWIFN, wait on daylight

COST SUMMARY

Class	Code	Description/Comments	Costs ($)
8870	102	Well Service Unit/(9590-50)Well Service Unit-I	8,076.00
8870	104	Wellsite Supervision/(9519-50) Well Site Supe	1,350.00
8870	105	Contract Services/(9512-50) Light tower	75.00
8870	112	Environmental/(9517-50) Porta-Potties	10.00
8870	113	Equipment Rental/(9512-50) 6 ea. 500 bbls fra	270.00
8870	113	Equipment Rental/(9512-50) Catwak & pipe ra	75.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs;	250.00
8870	208	Contingencies	353.00
		Total Daily Cost:	10,459.00
		Cumulative Cost to Date:	328,923.07

Exec Summary: Finish clean out of polymer squeeze perfs to BP @ 6650' then chase plug debris and clean out bottom perfs to 7331'. TOOH w bit, TIH to bottom perfs @ 7211-55'. Tagged at 7331', circulate bottoms up. TOOH w bit, TIH open ended to 7331' . SWIFN
Present Oper: Well Secure

24 Hr Forecast: Set balance cement plug, - 7080'-7331.Future perfs @ 6836-6838,6841-6843,6846-6848,6850-6856,6864-6868,6874-6880,6884-6886'. TOC 194ft below bottom perf. NOTE: RIG CREW WILL BE OFF ON WED IN ORDER TO ATTEND RIG OWNERS FUNNERAL.

Daily Completion And Workover Report

DIRTY DEVIL 31-15A

DIRTY DEVIL 31-15A

DATE: 11/14/2010

OPERATOR:	THURSTON ENERGY							
FOREMAN:	Gary Smiley			Report No.: 44		TMD:		
ENGINEER:	Joe Hess	SECTION:	15	AFE#:	000	TVD:	DSS:	44.0
FIELD:	DIRTY DEVIL	TWP:	9S	AFE TMD/TWC:			FOOTAGE:	
COUNTY:	UINTAH	RANGE:	24E	WI/NRI:		Rig Name/No.: Rig # 3		
STATE:	UTAH	KBELEV:	0 ft	API:	43-047-31726		PBTD:	

STIMULATION DATA

Stage #:	1		Job Date:	Contractor:	Pumped Via:
Job Description:			Gross Interval:	Tracer:	
Fluid Type:		Pad Vol:	Main Body Vol:	Flush Vol:	BLTR Oil/Other/M
# Prop in Frm:		Gas Type:	Gas Vol:		
Min Rate/psi:			Max Rate/psi:	Ave Rate/psi:	
ISIP:		FSIP:	15 min. SI:		
Frac Grad. Initial/ Final:	/			Prop Conc:	

Accident: Env. Incident:

Safety Meeting: High psi lines, working around power swivel, Overhead loads

From	To	Hrs.	Activity Last 24 Hours
6:00	7:00	1.00	Crew travel, start equipment, safety meeting
7:00	7:40	0.67	RU lines, pump Ect. TOOH to 2604', set pkr,
7:40	13:22	5.70	Psi test above packer to 1000 psi for 15-min. No psi loss. TOH w Pkr & wait on orders.
13:22	15:07	1.75	Make up 3.75" bit & TIH to the Cement Retainer @ 6222'
15:07	15:32	0.42	Tag retainer, RU swivel, and start drilling on retainer w reverse circulation, no more than 6K on bit..
15:32	16:15	0.72	Thru retainer, circulate clean, Swivel in 1 more jt, No obstructions or polymer squeeze fluid detected. LD single and swivel, start TIH w 2 stands, Started taking weight on third stand.
16:15	16:52	0.62	BO stand, RU swivel, try to break reverse circulation, psi to high, switch to tubing, break circulation, circulation psi around 1200 psi thru tubing, but falling so roll the hole the long way until returns clean up. Polymer squeeze fluid looked to consistency of 40 # gel but not solid or chunky as expected.
16:52	17:30	0.63	Returns clean up, switch back to reverse circulation and swivel down to 199 jts in @ 6483'. Some torque at bit detected but cleaned up to 6483 ft. BP @ 6650' (5 jts)
17:30	17:45	0.25	Reverse circulate 1.5 times tubing volume for 38 bbls,
17:45	18:00	0.25	SWIFN. drain pump and lines, hang jt 199 back on swivel
18:00	6:00	12.00	Crew travel, wait on daylight

COST SUMMARY

Class	Code	Description/Comments	Costs ($)
8870	102	Well Service Unit/(9590-50)Well Service Unit-F	5,028.00
8870	104	Wellsite Supervision/(9519-50) Well Site Supe	1,350.00
8870	105	Contract Services/(9512-50) Light tower	75.00
8870	112	Environmental/(9517-50) Porta-Potties	10.00
8870	113	Equipment Rental/(9512-50) 6 ea. 500 bbls fra	270.00
8870	113	Equipment Rental/(9512-50) Catwak & pipe ra	75.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs	250.00
8870	208	Contingencies	353.00
		Total Daily Cost:	7,411.00
		Cumulative Cost to Date:	318,464.07

Exec Summary: Psi tested from 2604' back to surface to 1000 psi for 15 min-OK TOOH w RTTS, Wait on orders. TIH w 3.75" bit, DU EZSV Cmt retainer @ 6222', Continue cleaning out Polymer squeeze and chase ret to Obsidian BP(composite) @ 6650'
Present Oper: Well Secure

24 Hr Forecast: Finish clean out of polymer squeeze perfs to BP @ 6650' then chase plug debris and drill out to bottom perfs. TOOH w bit, TIH to below bottom perfs @ 7211-55'. Set balance cement plug, leave TOC @ 7080'

Da ompletion And Workover Report

DIRTY DEVIL 31-15A

DIRTY DEVIL 31-15A

DATE: 11/13/2010

OPERATOR:	THURSTON ENERGY							
FOREMAN:	Gary Smiley			**Report No.: 43**		**TMD:**		
ENGINEER:	Joe Hess	**SECTION:**	15	**AFE#:**	000	**TVD:**	**DSS:**	43.0
FIELD:	DIRTY DEVIL	**TWP:**	9S	**AFE TMD/TWC:**			**FOOTAGE:**	
COUNTY:	UINTAH	**RANGE:**	24E	**WI/NRI:**		Rig Name/No.: Rig # 3		
STATE:	UTAH	**KBELEV:**	0 ft	**API:**	43-047-31726		**PBTD:**	

STIMULATION DATA

Stage #:	1		Job Date:	Contractor:		Pumped Via:
Job Description:			Gross Interval:	Tracer:		
Fluid Type:		Pad Vol:	Main Body Vol:	Flush Vol:		BLTR Oil/Other/M
# Prop in Frm:		Gas Type:	Gas Vol:			
Min Rate/psi:			Max Rate/psi:		Ave Rate/psi:	
ISIP:		FSIP:	15 min. SI:			
Frac Grad. Initial/ Final:	/			Prop Conc:		

Accident: Env. Incident:

Safety Meeting: , high psi lines, Hot Oiler & hot well fluids, Overhead loads

From	To	Hrs.	Activity Last 24 Hours
6:00	7:00	1.00	Crew travel, start equipment, safety meeting
7:00	16:00	9.00	Finish TOH w Setting tool, TIH w Bit to retainer @ 6222', Circulate hole volume w 3% KCL, close BOP and test all squeeze perfs to 800 psi, leakoff as follows-15-min 500 psi, try again Same results, TOH w Bit assy.
16:00	17:30	1.50	TIH w RTTS to 3326 ', psi down tubing to 800 psi, Leak-off as follows w rig pump isolated @ floor. 5-min-250 psi, 10-min-50 psi, Total loss in 15 min-350 psi
17:30	18:21	0.85	Switch to BS, psi to 800 psi. Leak-off as follows w rig pump isolated @ squeeze manifold. 5-min-250 psi, 10-min-75 psi, 15-min-75 psi, total loss in 15-min -400 psi, Checked tubing psi -no comunication.
18:21	18:45	0.40	Release pkr, TIH to 4435', psi test down tubingTo 800 psi, Leak-off as follows. 5-min-350, 10-min-50 psi, 15-min 50 psi, total loss in 15-min-450 psi
18:45	19:00	0.25	Wait on orders, TOH for 10 stands, 652 ft to 3783' to drop fluid level for WH winterization.
19:00	6:00	11.00	SWIFN-Wait on daylight. Will test cas above 2686' which is top set of old Squeeze perfs in the AM.

COST SUMMARY

Class	Code	Description/Comments	Costs ($)
8870	102	Well Service Unit/(9590-50)Well Service Unit-F	4,760.00
8870	104	Wellsite Supervision/(9519-50) Well Site Supe	1,350.00
8870	105	Contract Services/(9512-50) Light tower	75.00
8870	105	Contract Services/(9512-50) Tools w hand # 6	1,000.00
8870	108	Transportation/9525-50) Trucking # 5745-Del I	255.00
8870	112	Environmental/(9517-50) Porta-Potties	10.00
8870	113	Equipment Rental/(9512-50) 6 ea. 500 bbls fra	270.00
8870	113	Equipment Rental/(9512-50) Catwak & pipe ra	75.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs	250.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs	6,787.20
8870	208	Contingencies	742.00
		Total Daily Cost:	15,574.20
		Cumulative Cost to Date:	311,053.07

Exec Summary: Finish TOH w Setting tool, TIH w Bit to retainer @ 6222', Circulate hole volume w 3% KCL, close BOP and test all squeeze perfs to 800 psi, leakoff as follows-15-min 500 psi, try again Same results, TOH w Bit assy. TIH w RTTS, test from the top down.
Present Oper: Well Secure

24 Hr Forecast: Waiting on orders. Will test cas above 2686' which is top set of old Squeeze perfs in the AM.

Dai mpletion And Workover Report

DIRTY DEVIL 31-15A

DIRTY DEVIL 31-15A

DATE: 11/12/2010

OPERATOR:	THURSTON ENERGY							
FOREMAN:	Neil Bosley			Report No.: 42		TMD:		
ENGINEER:	Theron Hodel/	SECTION:	15	AFE#:	000	TVD:	DSS:	42.0
FIELD:	DIRTY DEVIL	TWP:	9S	AFE TMD/TWC:			FOOTAGE:	
COUNTY:	UINTAH	RANGE:	24E	WI/NRI:		Rig Name/No.: Rig # 3		
STATE:	UTAH	KBELEV:	0 ft	API:	43-047-31726		PBTD:	

STIMULATION DATA

Stage #:	1		Job Date:	Contractor:	Pumped Via:	
Job Description:			Gross Interval:	Tracer:		
Fluid Type:		Pad Vol:	Main Body Vol:	Flush Vol:	BLTR Oil/Other/M	
# Prop in Frm:		Gas Type:	Gas Vol:			
Min Rate/psi:			Max Rate/psi:		Ave Rate/psi:	
ISIP:		FSIP:	15 min. SI:			
Frac Grad. Initial/ Final:	/			Prop Conc:		

Accident: Env. Incident:

Safety Meeting: , high lines, Hot Oiler & hot well fluids

From	To	Hrs.	Activity Last 24 Hours
6:00	7:00	1.00	Crew travel, start equipment, safety meeting
7:00	14:30	7.50	RIH with bit to 4600', drill out retainer and chase to bottom, circulate clean 3% KCL, trip out of hole. Lay down bit, make up mechanical setting tool and EZSV cement retainer, trip in hole to 6222', set retainer.
14:30	18:00	3.50	Rig up cement equipment, safety meeting, pressure test lines to 4000, open tbg and get injection rate, .5 BPM @ 1500 psi, shut down and mix H2ZERO, sting out of retainer and pump 20 bbls down tbg to spot H2Zero at end of tbg, sting into retainer and pump into perfs, 10 BBLS into .5 BPM @ 2000 psi, end .4 BPM @ 2500, sting out of retainer, reverse out 1.5 times tbg volume = 36 BBLS, rig down cement equipment
18:00	19:00	1.00	POOH with tbg for 40 stands, shut well in for night
19:00	6:00	11.00	Crew travel, wait on daylight

COST SUMMARY

Class	Code	Description/Comments	Costs ($)
8770	116	Cementing/(9358-50) cement 4 stages	63,775.86
8770	204	Completion Services/4, bridge plugs, 4, cemer	38,191.94
8870	102	Well Service Unit/(9590-50)Well Service Unit-F	5,410.00
8870	104	Wellsite Supervision/(9519-50) Well Site Supe	1,350.00
8870	112	Environmental/(9517-50) Porta-Potties	10.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs	250.00
8870	208	Contingencies	5,449.00
		Total Daily Cost:	114,436.80
		Cumulative Cost to Date:	295,478.87

Exec Summary: Drill out retainer @ 4600', chase to bottom, circulate hole, POOH, run new retainer set @ 6222', cement perfs from 6281-6617

Present Oper: Wait on cement

24 Hr Forecast: Squeeze 4th set perfs, wait on cement

Dail mpletion And Workover Report

DIRTY DEVIL 31-15A

DIRTY DEVIL 31-15A DATE: 11/11/2010

OPERATOR:	THURSTON ENERGY							
FOREMAN:	Neil Bosley			**Report No.: 41**		**TMD:**		
ENGINEER:	Theron Hodel/	**SECTION:**	15	**AFE#:**	000	**TVD:**	**DSS:**	41.0
FIELD:	DIRTY DEVIL	**TWP:**	9S	**AFE TMD/TWC:**			**FOOTAGE:**	
COUNTY:	UINTAH	**RANGE:**	24E	**WI/NRI:**		Rig Name/No.: Rig # 3		
STATE:	UTAH	**KBELEV:**	0 ft	**API:**	43-047-31726		**PBTD:**	

STIMULATION DATA

Stage #:	1		Job Date:	Contractor:		Pumped Via:
Job Description:			Gross Interval:	Tracer:		
Fluid Type:		Pad Vol:	Main Body Vol:	Flush Vol:		BLTR Oil/Other/W
# Prop in Frm:		Gas Type:	Gas Vol:			
Min Rate/psi:			Max Rate/psi:		Ave Rate/psi:	
ISIP:		FSIP:	15 min. SI:			
Frac Grad. Initial/ Final:	/			Prop Conc:		

Accident: Env. Incident:

Safety Meeting: WL safety, high lines, Hot Oiler & hot well fluids

From	To	Hrs.	Activity Last 24 Hours
6:00	7:00	1.00	Crew travel, start equipment, safety meeting
7:00	8:00	1.00	Tbg froze up, move in heater and thaw out
8:00	12:00	4.00	Swab down tbg to 2000', for negative test, wait 30 minutes, RIH and tag fluid @ 1800', 200' influx, Release packer and trip out of hole
12:00	14:30	2.50	Lay down packer, make up bit and bit sub, RIH, tag bridge plug, drill out, chase to bottom with tbg, circulate on bottom for 45 min.
14:30	20:00	5.50	POOH with tbg and bit, make up mechanical setting tool, trip in hole, while running in hole retainer set @ 4600', could not work free, pullinto and shear off retainer, pull out of hole, lay down mechanical setting tool
20:00	6:00	10.00	Crew travel, wait on daylight

COST SUMMARY

Class	Code	Description/Comments	Costs ($)
8870	102	Well Service Unit/(9590-50)Well Service Unit-I	5,691.00
8870	104	Wellsite Supervision/(9519-50) Well Site Supe	1,350.00
8870	112	Environmental/(9517-50) Porta-Potties	10.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs;	250.00
8870	208	Contingencies	365.00
		Total Daily Cost:	7,666.00
		Cumulative Cost to Date:	181,042.07

Exec Summary: Test 3rd squeeze job, pull negative test, release packer, POOH, RIH with bit, drill BP, chase to bottom, circ hole, POOH, RIH with retainer

Present Oper: Well secure

24 Hr Forecast: Squeeze 4th set perfs, wait on cement

Dai' mpletion And Workover Report

DIRTY DEVIL 31-15A

DIRTY DEVIL 31-15A DATE: **11/10/2010**

OPERATOR:	THURSTON ENERGY							
FOREMAN:	Neil Bosley			**Report No.: 40**		**TMD:**		
ENGINEER:	Theron Hodel/	**SECTION:**	15	**AFE#:**	000	**TVD:**	**DSS:**	40.0
FIELD:	DIRTY DEVIL	**TWP:**	9S	**AFE TMD/TWC:**			**FOOTAGE:**	
COUNTY:	UINTAH	**RANGE:**	24E	**WI/NRI:**		Rig Name/No.: Rig # 3		
STATE:	UTAH	**KBELEV:**	0 ft	**API:**	43-047-31726		**PBTD:**	

STIMULATION DATA

Stage #:	1		Job Date:	Contractor:		Pumped Via:
Job Description:			Gross Interval:	Tracer:		
Fluid Type:		Pad Vol:	Main Body Vol:	Flush Vol:		BLTR Oil/Other/M
# Prop in Frm:		Gas Type:	Gas Vol:			
Min Rate/psi:			Max Rate/psi:		Ave Rate/psi:	
ISIP:		FSIP:	15 min. SI:			
Frac Grad. Initial/ Final:	/			Prop Conc:		

Accident: Env. Incident:

Safety Meeting: WL safety, high lines, Hot Oiler & hot well fluids

From	To	Hrs.	Activity Last 24 Hours
6:00	7:00	1.00	Crew travel, start equipment, safety meeting
7:00	11:00	4.00	POOH with tbg and stinger, lay down stinger, make up bit, RIH with bit and tbg, tag retainer @ 6240, pick up power swivel, drill out cement retainer, drill out to Bridge plug,
11:00	12:00	1.00	Pressure test backside to 800 psi from surface to bridge plug @ 6480'. Monitor with squeeze manifold gauge PSI to 850 5 min = 650 10 min = 600 15 min = 550 Bleed off to flat tank, watch for flow, small trickle to tank after 10 min. Call to confirm test results and plan of action, hot shot packer to location Decision to run packer and test squeeze on perfs from 6281-6446, to 1000 PSI
12:00	16:00	4.00	POOH with tbg and bit, make up 4 1/2 RTTS packer, RIH with packer and tbg, set packer @ 6240'
16:00	18:00	2.00	Pressure up tbg to 1000 psi Try to establish pump in rate, pressure increases steadily, could not establish rate Begin leak off test @ 1000 PSI, monitor with rig pump gauge 5 min= 800 10 min = 725 15 min = 650 Bleed off pressure to flat tank and watch for flow, small trickle to tank decreasing to few drips after 10 min, same results as previous test. Wait on orders
18:00	6:00	12.00	Crew travel, wait on orders and daylight

COST SUMMARY

Class	Code	Description/Comments	Costs ($)
8870	102	Well Service Unit/(9590-50)Well Service Unit-F	5,028.00
8870	104	Wellsite Supervision/(9519-50) Well Site Supe	1,350.00
8870	105	Contract Services/9313-50) Pump hot water	717.50
8870	112	Environmental/(9517-50) Porta-Potties	10.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs:	250.00
8870	208	Contingencies	367.00
		Total Daily Cost:	7,722.50
		Cumulative Cost to Date:	173,376.07

Exec Summary: POOH, RIH with bit, drill out retainer, test backside to 800 psi, TOOH, RIH with packer abd tbg, set packer, test squeeze perfs @ 6281-6446

Present Oper: Well secure

24 Hr Forecast: POOH, RIH with bit, drill out retainer and BP, POOH, RIH with mechanical setting tool and retainer, set retainer squeeze 4th zone

Da ompletion And Workover Report

DIRTY DEVIL 31-15A

DIRTY DEVIL 31-15A

DATE: 11/09/2010

OPERATOR:	THURSTON ENERGY								
FOREMAN:	Neil Bosley			**Report No.:**	39		**TMD:**		
ENGINEER:	Theron Hodel/	**SECTION:**	15	**AFE#:**	000		**TVD:**	**DSS:**	39.0
FIELD:	DIRTY DEVIL	**TWP:**	9S	**AFE TMD/TWC:**				**FOOTAGE:**	
COUNTY:	UINTAH	**RANGE:**	24E	**WI/NRI:**			Rig Name/No.: Rig # 3		
STATE:	UTAH	**KBELEV:**	0 ft	**API:**	43-047-31726			**PBTD:**	

STIMULATION DATA

Stage #:	1		Job Date:	Contractor:		Pumped Via:
Job Description:			Gross Interval:	Tracer:		
Fluid Type:		Pad Vol:	Main Body Vol:	Flush Vol:		BLTR Oil/Other/M
# Prop in Frm:		Gas Type:	Gas Vol:			
Min Rate/psi:			Max Rate/psi:		Ave Rate/psi:	
ISIP:		FSIP:	15 min. SI:			
Frac Grad. Initial/ Final:	/			Prop Conc:		

Accident: Env. Incident:

Safety Meeting: WL safety, high lines, Hot Oiler & hot well fluids

From	To	Hrs.	Activity Last 24 Hours
6:00	7:00	1.00	Crew travel, start equipment, safety meeting
7:00	10:00	3.00	Start trip in hole with stinger and tbg, sting into retainer
10:00	13:00	3.00	Waiting on cement equipment from Vernal Haul in 200 BBLS 3% KCL, 60 BBLS fresh water
13:00	14:30	1.50	Cement equipment on location, spot and rig up
14:30	15:30	1.00	safety meeting, pressure test lines to 4000, test ok, start injection test on perfs from 6281' - 6446, .3 BPM @ 2400 psi, shut down and mix H20 & Backstop,
15:30	17:30	2.00	Sting out of retainer and start to pump H20, spot to end of tbg, sting into retainer and start to inject into formation @ .3 BPM @ 2400 psi, pump away 17 BBLS volume of H2o, sting out of retainer and reverse circulate to flat tank to clear tbg , rig down cement equipment
17:30	18:30	1.00	Start trip out of hole, pull 30 stands, shut well in for night
18:30	6:00	11.50	Crew travel, waiting on daylight

COST SUMMARY

Class	Code	Description/Comments 9545	Costs ($)
8770	200	Tubular/Wellhead Services/(~~9345~~ 50) 2 csg va	2,376.68
8870	102	Well Service Unit/(9590-50)Well Service Unit-F	5,138.00
8870	104	Wellsite Supervision/(9519-50) Well Site Supe	1,350.00
8870	112	Environmental/(9517-50) Porta-Potties	10.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs	250.00
8870	206	Contingencies	456.00
		Total Daily Cost:	9,580.68
		Cumulative Cost to Date:	395,547.15

Exec Summary: RIH with stinger and tbg, cement 3rd zone

Present Oper: Well secure

24 Hr Forecast: POOH, RIH with bit, drill out retainer and BP, POOH, RIH with mechanical setting tool and retainer, set retainer squeeze 4th zone

Dail npletion And Workover Report

DIRTY DEVIL 31-15A

DIRTY DEVIL 31-15A

DATE: 11/08/2010

OPERATOR:	THURSTON ENERGY								
FOREMAN:	Neil Bosley			**Report No.:**	38		**TMD:**		
ENGINEER:	Theron Hodel/	**SECTION:**	15	**AFE#:**	000		**TVD:**	**DSS:**	38.0
FIELD:	DIRTY DEVIL	**TWP:**	9S	**AFE TMD/TWC:**				**FOOTAGE:**	
COUNTY:	UINTAH	**RANGE:**	24E	**WI/NRI:**			Rig Name/No.: Rig # 3		
STATE:	UTAH	**KBELEV:**	0 ft	**API:**	43-047-31726			**PBTD:**	

STIMULATION DATA

Stage #:	1		Job Date:		Contractor:		Pumped Via:
Job Description:			Gross Interval:		Tracer:		
Fluid Type:		Pad Vol:	Main Body Vol:		Flush Vol:		BLTR Oil/Other/M
# Prop in Frm:		Gas Type:	Gas Vol:				
Min Rate/psi:			Max Rate/psi:			Ave Rate/psi:	
ISIP:		FSIP:	15 min. SI:				
Frac Grad. Initial/ Final:	/				Prop Conc:		

Accident: Env. Incident:

Safety Meeting: WL safety, high lines, Hot Oiler & hot well fluids

From	To	Hrs.	Activity Last 24 Hours
6:00	7:00	1.00	Crew travel, start equipment, safety meeting
7:00	8:30	1.50	Continue trip in hole to drill out cement
8:30	10:30	2.00	Tag top of cement, rig up power swivel, start to drill cement, drill thru bottom BP @ 5650', chase down hole with 2 jts, TOOH with tbg and bit
10:30	16:00	5.50	Rig up E-line unit, start in hole with 3.625 gauge ring and junk basket, stacked out @ 5823', could not push BP bottom down hole, POOH, make up 2, 2" weight bars and start in hole. Tag @ 5823, beat down with weight bars, chase BP bottom down hole to 6290', Stuck with E-line, work free, pull out of hole,
16:00	19:00	3.00	RIH with bit and tbg, tag plug bottom, push down hole to 7330', trip out of hole with tbg and bit
19:00	22:00	3.00	Rig up e-line, RIH with 3.625 gauge ring to 6700' POOH, RIH with 4 1/2 comp BP, set @ 6650' 45 sec set time, POOH, RIH with 4 1/2 comp BP, set @ 6450' 55 sec set time, POOH RIH with cement retainer, set @ 6240, 40 sec set time, POOH Rig down E-line
22:00	6:00	8.00	Crew travel, wait on daylight

COST SUMMARY

Class	Code	Description/Comments	Costs ($)
8770	201	Logging/Formation Eval/Testing/(9330-50) E-li	10,573.55
8870	102	Well Service Unit/(9590-50)Well Service Unit-F	9,879.00
8870	104	Wellsite Supervision/(9519-50) Well Site Supe	1,350.00
8870	112	Environmental/(9517-50) Porta-Potties	10.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs:	250.00
8870	208	Contingencies	1,103.00
		Total Daily Cost:	23,165.55
		Cumulative Cost to Date:	385,966.47

Exec Summary: Drill out second squeeze, rig up e-line, set 2 comp bridge plugs and cemment retainer

Present Oper: well secure

24 Hr Forecast: RIH with stinger and tbg, cement 3rd zone

Dai mpletion And Workover Report

DIRTY DEVIL 31-15A

DIRTY DEVIL 31-15A DATE: **11/07/2010**

OPERATOR:	THURSTON ENERGY							
FOREMAN:	Neil Bosley			**Report No.:** 37		**TMD:**		
ENGINEER:	Theron Hodel/	**SECTION:**	15	**AFE#:**	000	**TVD:**	**DSS:**	37.0
FIELD:	DIRTY DEVIL	**TWP:**	9S	**AFE TMD/TWC:**			**FOOTAGE:**	
COUNTY:	UINTAH	**RANGE:**	24E	**WI/NRI:**		Rig Name/No.: Rig # 3		
STATE:	UTAH	**KBELEV:**	0 ft	**API:**	43-047-31726		**PBTD:**	

STIMULATION DATA

Stage #:	1		Job Date:	Contractor:		Pumped Via:
Job Description:			Gross Interval:	Tracer:		
Fluid Type:		Pad Vol:	Main Body Vol:	Flush Vol:		BLTR Oil/Other/M
# Prop in Frm:		Gas Type:	Gas Vol:			
Min Rate/psi:			Max Rate/psi:		Ave Rate/psi:	
ISIP:		FSIP:	15 min. SI:			
Frac Grad. Initial/ Final:	/			Prop Conc:		

Accident: Env. Incident:

Safety Meeting: WL safety, high lines, Hot Oiler & hot well fluids

From	To	Hrs.	Activity Last 24 Hours
6:00	7:00	1.00	Crew travel, start equipment, safety meeting
7:00	8:00	1.00	Change out two bad csg valves, Heat rig tank and skim off oil. Haul to production fac.
8:00	12:00	4.00	RIH with 3 7/8 rock bit, rig up power swivel, tag and start drilling cement @ 4270'-4340', drill up bridge plug, RIH to 5690', tag bridge plug. Circulate 3% KCL in hole. POOH with tbg and bit
12:00	16:00	4.00	Pick up mechanical setting tool and cement retainer, start in hole with tbg. Set cement retainer @ 5407. Rig up cement equipment, safety meeting, pressure test lines to 4000 psi, test ok.
16:00	17:30	1.50	Start to pump, get injection rate = 1.5 BPM @ 2200 psi, start cement, 15.8#, pump @ 1.5 bpm, @ 2800 psi, stage last 2 bbls cement, watch pressure, levels off @ 1500 psi, start to pump last 1.5 bbls cement @ 1.3 BPM, @ 3100 psi, sting out of retainer and dump .5 bbl cement on top. Reverse out and clean up to flat tank.
17:30	19:00	1.50	Rig down cement equipment, start in hole with tbg and bit, run 40 stands tbg.. Shut well in for night
19:00	5:00	11.00	Crew travel, wait on cement and daylight

COST SUMMARY

Class	Code	Description/Comments	Costs ($)
8770	116	Cementing/(9308-50) Cement	13,133.84
8870	102	Well Service Unit/(9590-50)Well Service Unit-F	5,411.00
8870	104	Wellsite Supervision/(9519-50) Well Site Supe	1,350.00
8870	112	Environmental/(9517-50) Porta-Potties	10.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs	250.00
8870	208	Contingencies	1,007.00
		Total Daily Cost:	21,161.84
		Cumulative Cost to Date:	362,800.92

Exec Summary: Drill out cement squeeze, Trip out of hole, RIH with mech setting tool and cement retainer, set retainer and squeeze 2 nd zone

Present Oper: Well secure

24 Hr Forecast: Drill out second squeeze, rig up e-line, set 2 comp bridge plugs and cemment retainerTIH with tbg and stinger

Dai mpletion And Workover Report

DIRTY DEVIL 31-15A

DIRTY DEVIL 31-15A

DATE: 11/06/2010

OPERATOR:	THURSTON ENERGY								
FOREMAN:	Neil Bosley			**Report No.:**	36		**TMD:**		
ENGINEER:	Theron Hodel/	**SECTION:**	15	**AFE#:**	000		**TVD:**	**DSS:**	36.0
FIELD:	DIRTY DEVIL	**TWP:**	9S	**AFE TMD/TWC:**				**FOOTAGE:**	
COUNTY:	UINTAH	**RANGE:**	24E	**WI/NRI:**			Rig Name/No.: Rig # 3		
STATE:	UTAH	**KBELEV:**	0 ft	**API:**	43-047-31726			**PBTD:**	

STIMULATION DATA

Stage #:	1		Job Date:	Contractor:		Pumped Via:
Job Description:			Gross Interval:	Tracer:		
Fluid Type:		Pad Vol:	Main Body Vol:	Flush Vol:		BLTR Oil/Other/M
# Prop in Frm:		Gas Type:	Gas Vol:			
Min Rate/psi:			Max Rate/psi:		Ave Rate/psi:	
ISIP:		FSIP:	15 min. SI:			
Frac Grad. Initial/ Final:	/			Prop Conc:		

Accident: Env. Incident:

Safety Meeting: WL safety, high lines, Hot Oiler & hot well fluids

From	To	Hrs.	Activity Last 24 Hours
6:00	7:00	1.00	Crew travel, start equipment, safety meeting
7:00	11:00	4.00	Start in hole with tbg and stinger, tag retainer @ 4280', circulate 80 BBLS 3% KCL, hole clean, sting into retainer
11:00	13:00	2.00	Cement crew on location, rig up cement equipment, safety meeting
13:00	15:00	2.00	Test lines to 4000 psi, test ok, Start injection test, pump 3 BPM @ 1200 psi, could not increase rate, pressure increased as rate increased. Pump 20 BBLS super flush @ 1200 psi @ 3 BPM, pump 5 BBL spacer, pump 30 BBLS 15.8 # cement @ 3 BPM, pressure increased to 2500 psi. Stage last 2 BBLS cement, shut down pump and watch pressure gauge for 5 min, no pressure loss from 2500 psi. Pump last 1.5 bbls cement, sting out of retainer, place .5 BBLS cement on top of retainer, reverse circulate to clean out tbg.
15:00	16:30	1.50	Rig down cement pumper, start out of hole with tbg
16:30	17:00	0.50	Out of hole nwith tbg and stinger. Shut well in for night, return in AM to drill out cement and plugs
17:00	6:00	13.00	Crew travel, wait on daylight

COST SUMMARY

Class	Code	Description/Comments	Costs ($)
8770	108	Transportation/(9325-50) Haul rig pump and ta	1,550.00
8770	116	Cementing/(9308-50) Cement 9556	15,062.03
8870	102	Well Service Unit/(9590-50)Well Service Unit-F	3,500.00
8870	104	Wellsite Supervision/(9519-50) Well Site Supe	1,350.00
8870	112	Environmental/(9517-50) Porta-Potties	10.00
8870	113	Equipment Rental/(9561-50) 7/16" x 5K BOPs:	250.00
8870	208	Contingencies	1,086.00
		Total Daily Cost:	22,808.03
		Cumulative Cost to Date:	341,639.08

Exec Summary: RIH with stinger on tbg, circulate 3% KCL, sting into retainer , squeeze first zone

Present Oper: ready for drill out in the AM

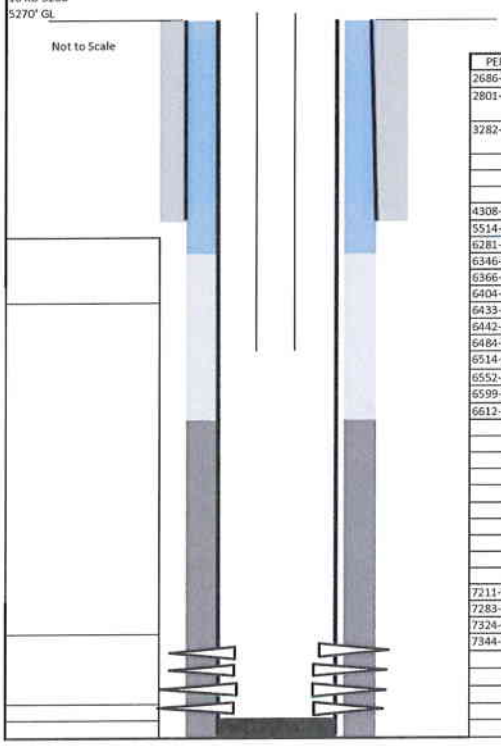
24 Hr Forecast: Drill out cement squeeze, Trip out of hole, RIH with mech setting tool and cement retainer, set retainer and squeeze 2 nd zone

Thurston Energy Operating Company LLC-31-15A

* RED EVENTS ARE FUTURE

10'KB 5280
5270' GL

Not to Scale



Casing Strings	OD	ID	Drift	Weight	Grade	Connection	Depth	Burst	Collapse
Surface	9 5/8			36			250'		
Intermediate	4 1/2			11.6	N-80		7475'		
Tubing									

PERFS	Formation
2686-2690	GREEN RIVER-Perfs. Squeezed
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3282-3286	
4308-4320	Wasatch- Perfs. 4308-4320 squeezed 11/6/10, perfs. 5514-5524 squeezed 11/7/10, perfs. 6281-6446 squeezed 11/9/10, second squeeze on perfs. 6281-6617 on 11/12/10, test squeeze on 11/13/10, good test.
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6281-6286	
6346-6350	
6366-6372	
6404-6408	
6433-6437	
6442-6446	
6484-6486	
6514-6526	
6552-6558	
6599-6602	
6612-6617	
7211-7228	Mesa Verde - These perfs. Are open
7283-7320	
7324-7338	
7344-7355	

Misc Comments

set CIBP @ 7200' with 100' of cement on top of plug, set CIBP @ 4400' and top with cement to 4200', set CIBP @ 2600' with 100' of cement on top, RIH and shoot perfs @ 302'-304', TIH with retainer, circulate well, well circulates to surface pump cement to surface, sting out of retainer and pump 300' of cement to surface, cut off well head and weld marker on and bury.

Drawn By: Theron Hoedel - Halliburton Project Management Last Updated 1.4.11

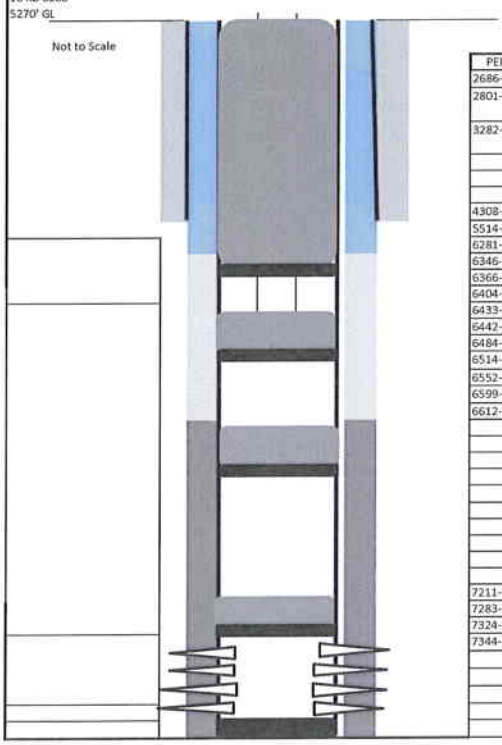
- Before Plugging -

Thurston Energy Operating Company LLC-31-15A

* RED EVENTS ARE FUTURE

10'KB 5280
5270' GL

Not to Scale



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Drawn By: Theron Hoedel - Halliburton Project Management Last Updated 1.4.11

-After Plugging-

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-28042

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL: OIL WELL ☑ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: ~~Thurston~~ 31-15A Dippy Devil

2. NAME OF OPERATOR: Thurston Energy Operating Company LLC

9. API NUMBER: 4304731726

3. ADDRESS OF OPERATOR: 4925 Greenville Ave.840 CITY Dallas STATE TX ZIP 75206

PHONE NUMBER: (469) 769-2222

10. FIELD AND POOL, OR WILDCAT: Bonanza

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 616' FNL 1829 FEL

COUNTY: Uintah

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 15 T9S 924 E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☑ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion: 4/19/2013	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Well has been plugged according to agreed upon procedure, representative Dave Hackford was on location. See attached well bore diagram.
well was cleaned out to 7048'
CIBP set @ 7034' with 250' of cement on top, cement to 6784'
CIBP set @ 4400' with 350' of cement on top, cement to 4,050'
CIBP set at 2600' with 350' +/- of cement on top, cement to 2250'
CIBP set @ 315' , Per. holes @ 300' to 304' (12 holes) set Retainer @ 275' and pump cement to surface (9 5/8) sting out of retainer and pump cement to surface (4 1/2)
Dig up around well head and cut off 4' below surface, weld ID plate on and bury
dig up dead men and haul off location.

NAME (PLEASE PRINT) Chris Curton TITLE President

SIGNATURE DATE 10/29/2013

(This space for State use only)

RECEIVED
NOV 05 2013
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

INSTRUCTIONS

This form shall be submitted by the operator to show the intention and/or completion of the following:

- miscellaneous work projects and actions for which other specific report forms do not exist;
- all other work and events as identified in section 11, Type of Action, or as required by the Utah Oil and Gas Conservation General Rules, including:
  - minor deepening of an existing well bore,
  - plugging back a well,
  - recompleting to a different producing formation within an existing well bore (intent only),
  - reperforating the current producing formation,
  - drilling a sidetrack to repair a well,
  - reporting monthly the status of each drilling well.

This form is not to be used for <u>proposals</u> to

- drill new wells,
- reenter previously plugged and abandoned wells,
- significantly deepen existing wells below their current bottom-hole depth,
- drill horizontal laterals from an existing well bore,
- drill hydrocarbon exploratory holes such as core samples and stratigraphic tests.

Use Form 3, Application for Permit to Drill (APD) for such proposals.

NOTICE OF INTENT - A notice of intention to do work on a well or to change plans previously approved shall be submitted in duplicate and must be received and approved by the division before the work is commenced. The operator is responsible for receipt of the notice by the division in ample time for proper consideration and action. In cases of emergency, the operator may obtain verbal approval to commence work. Within five days after receiving verbal approval, the operator shall submit a Sundry Notice describing the work and acknowledging the verbal approval.

SUBSEQUENT REPORT - A subsequent report shall be submitted to the division within 30 days of the completion of the outlined work. Specific details of the work performed should be provided, including dates, well depths, placement of plugs, etc.

WELL ABANDONMENT - Proposals to abandon a well and subsequent reports of abandonment should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, and method of parting of any casing, liner, or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

In addition to any Sundry Notice forms submitted, **Form 8, Well Completion or Recompletion Report and Log** must be submitted to the division to report the <u>results</u> of the following operations:

- completing or plugging a new well,
- reentering a previously plugged and abandoned well,
- significantly deepening an existing well bore below the current bottom-hole depth,
- drilling horizontal laterals from an existing well bore,
- drilling hydrocarbon exploratory holes such as core samples and stratigraphic tests,
- recompleting to a different producing formation.

Send to:

Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

Thurston Energy Operating Company LLC-31-15A

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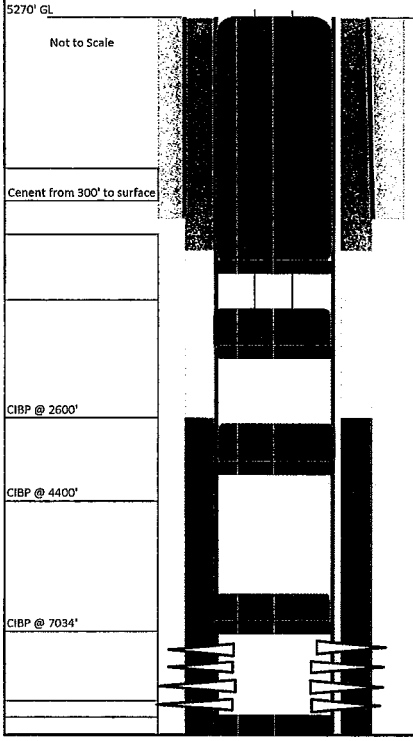

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Drawn By: Theron Hoefel - Halliburton Project Management Last Updated 1.4.11